Capgemini

INTELLIGENT
PROPERTY SOLUTIONS

Insights and data reduce property risks with
climate change and sustainability metrics

CLIMATE CHANGE AFFECTS THE PROPERTY INSURANCE SECTOR

Climate change disrupts the rhythm of our businesses and communities globally. For several decades now, the secondary peril loss experience – including wildfires, rainstorms, and floods – has deteriorated. We believe that with increasing climate risks and slow adoption of sustainability practices, this trend will continue with greater loss frequency and severity.

- A recent Swiss Re study reported that the total natural catastrophes losses in 2021 was more than USD 250 billion; and only about USD 105 billion of that amount was insured, indicating the need for coverage.[1]

- 40% of insurers rank climate change as the top priority along with profitability and insurability emerging as leading climate-related issues.[2]

- During the most recent five-year period, the frequency of billion-dollar weather disasters averaged one event every 18 days, as compared with 82 days between such disasters during the 1980's.[3]

1 – Natural catastrophes in 2021: The floodgates are open, Swiss Re Institute, Sigma, No. 1, 2022.

2 – Climate Central, a research and communications nonprofit, 2022.

3 – Capgemini's World Insurance Report, EFMA, 2022.

IMPACT ON PROPERTY LINES

Property lines are impacted by a wide range of perils and estimating risks has become increasingly complex. To understand the loss estimates and profile property risks individually and holistically, a host of moving factors need to be incorporated including climate change, durability of construction materials, and changes in property valuation.

While property resilience requires a sophisticated data strategy, Capgemini's World Insurance Report of 2022 highlights that only 35% of insurers have adopted advanced data analysis tools such as machine-learning-based pricing and risk models. Traditional techniques to profile risks may not fully monetize the use of data for underwriting, estimating costs of repair, and classifying the risks, without a centralized location master. Such traditional techniques do not leverage extended data on the risks being written, including that of behavioral upkeep and current condition to predict losses. Resilience champions —only 8% of insurers—access more than six new data sources, including satellite data, remote sensors, weather stations, geo-data, social media data, ESG models, and water levels.[1] Adoption of similar non-traditional insights by incorporating a wide range of data sources can create opportunities for insurers to improve accuracy in decision making, while reducing cycle times.

Innovative tools and technologies offer insurers the ability to profile risks with more granular details that could include green metrics, enhanced predictability of losses, and timely and accurate property valuations. For example, integrated and continuous digitized monitoring systems help insurers proactively guide insureds on upkeep issues—such as HVAC filters, lighting, and wastewater management—and the impact of sustainable choices.

> " *The insurance industry has the greatest opportunity and most unique and influential position to directly impact how climate change will affect customers."* [2]

Nigel Walsh
Managing Director, Insurance, Google, UK

When Capgemini interviewed 500+ business and technology executives, as part of its Insurance Data Masters 2022 Research, we found that 65% of them talked about the lack of scalable data platforms to provide insights to underwriters.[3] External data-driven insights including aerial imagery along with property-specific data, can empower insurers to profile, place, and price creatively based on the validated condition of a property as well as its resiliency metrics. And insurers can proactively send property care alerts and track responses through use of integrated IOT-enabled systems.

Overall, leveraging rich sources of external data along with innovative new programs such as adaptive loss control alerts and risk placements considering resiliency and greenness, enables informed decisions and also encourages sustainable practices while providing value for the property owner. In addition, centralizing all location insights with currently insured properties and historical information enables a portfolio level view for the insurer to make better book decisions around risk appetite and more nimble underwriting guideline updates.

1 – Capgemini's World Insurance Report, EFMA, 2022.
2 – Ibid, p. 7.
3 – Capgemini Research Institute, The Data-powered Insurer, 2022.

THE VALUE OF DATA

We believe in the impact of data and the importance of alternative variables that can help detect compelling signals in aggregate, which otherwise may be unnoticed. These signals can warn insurers to advise property owners to act and mitigate potential loss. External data sets coupled with high resolution, continuous monitoring techniques can fuel predictive modeling that triggers timely maintenance alerts, potentially saving millions of dollars in losses.

To enable the desired business outcomes of accurate pricing and placement of risks, granular segmentation, adaptive loss control, and improved event resolution cycles, the following are necessary:

- A holistic data integration and mechanization platform to enable modeling

- An innovation cycle to onboard AI/ML insights with a fail-fast approach

- Multi-step value added services to encourage more ESG-friendly behaviors

- Alternative business models that drive resiliency and encourage sustainable practices

With these mandatories in mind, insurers succeed. Intelligent Property is a solution that uses our Sustainability Data Hub (SDH) and 890 by Capgemini as core data enrichment and data delivery platforms. Capgemini helped several insurers using the Intelligent Property Solutions to generate multiple positive business outcomes. One of Capgemini's brokerage clients uses the Intelligent Property Solution to study the evolution of exposures over a seven-year period to provide better advice to their clients on relevant coverages and deductible selections plus location benefit plans. Another client uses data mastering technologies to curate nearly 400 unique variables that define every commercial property that is listed in the key global markets in which it operates. Similarly, a large P&C writer employs more granular geo-spatial grids to optimize their property book and define their underwriting guidelines for better risk selection targets and risk diversification.

A CLOSER LOOK AT THE INTELLIGENT PROPERTY SOLUTION

This proprietary Intelligent Property solution offers a differentiated approach to sustainable property, powered by curated data plus data-driven and actionable insights.
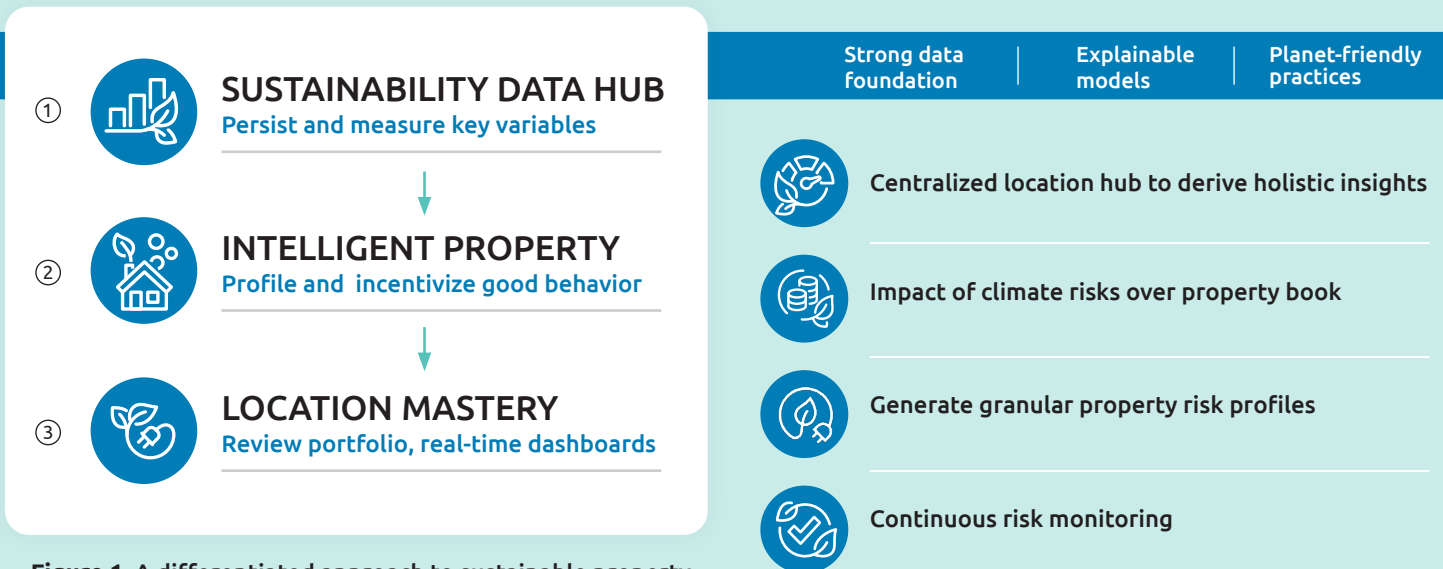

①	**SUSTAINABILITY DATA HUB** — Persist and measure key variables		Strong data foundation	Explainable models	Planet-friendly practices
②	**INTELLIGENT PROPERTY** — Profile and incentivize good behavior				
③	**LOCATION MASTERY** — Review portfolio, real-time dashboards				

- Centralized location hub to derive holistic insights
- Impact of climate risks over property book
- Generate granular property risk profiles
- Continuous risk monitoring

Figure 1. A differentiated approach to sustainable property.

ROBUST SOLUTION ARCHITECTURE

The Intelligent Property architecture is comprised of three key components:

- **Sustainable Data Hub, to maintain and measure key variables.**
  The enterprise-wide platform centralizes data elements from a wide variety of data sources; it also contains a variety of data models from across claims and policy platforms to effectively jumpstart sustainability measurement and reporting and to derive ESG-specific indices.

- **Intelligent Property, to integrate data and incent good behavior.**
  This component's data-driven insights, profiling properties based on green property and resiliency metrics, enable accurate risk profiling and continuous risk monitoring for underwriting, pricing, and loss control.

- **Location mastery, including customized metrics, portfolio reviews, and dashboards.**
  The third layer of our solution architecture uses best-in-class practices for creating location mastery including green metrics; it enables risk measurement using composite customized indices, pricing decisions using ESG variables, and audit optimization and loss control. The component's dashboards can be delivered across multiple use cases for easy data and insight display. (See Figure 2.) In addition, this allows for portfolio review and dynamic adjustments using more granular geo-spatial analysis of the book.

Intelligent Property Dashboards Across Multiple Use Cases
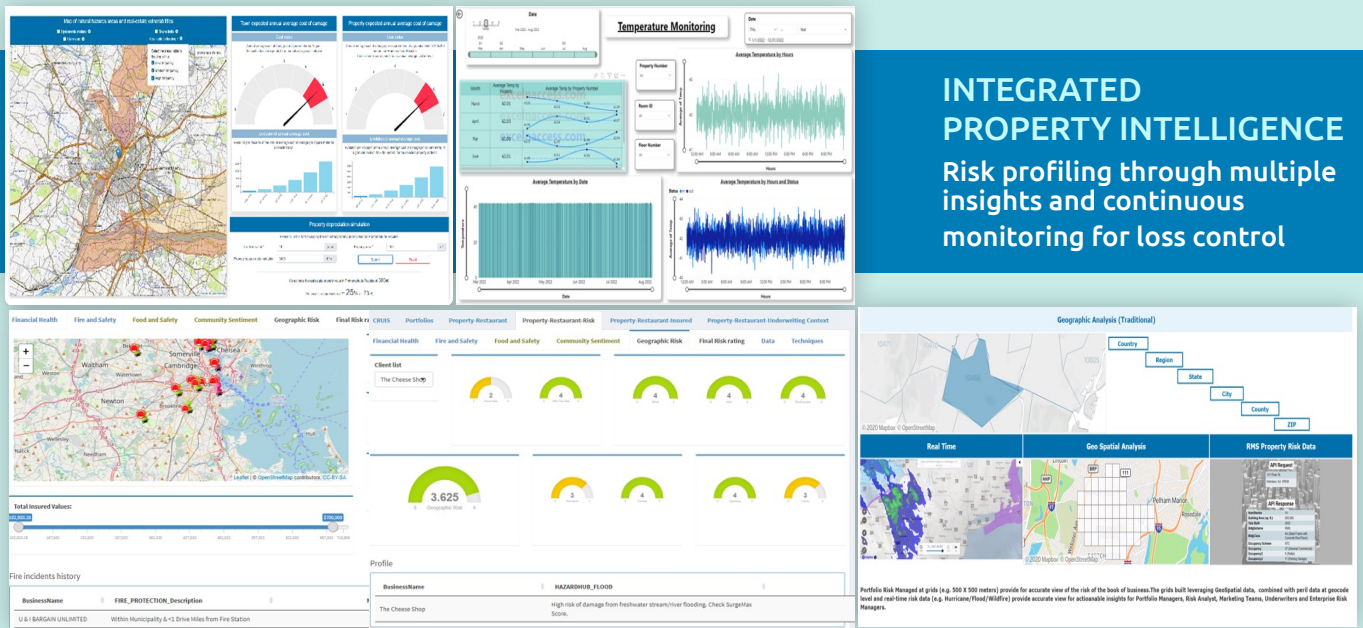
INTEGRATED PROPERTY INTELLIGENCE
Risk profiling through multiple insights and continuous monitoring for loss control

Figure 2. Sample ESG Intelligence dashboard showing key indices and category resilience and green property metrics.

ROBUST SOLUTION BENEFITS

Sustainability, risk management, and operational advantages for property insurers enable:

PROFITABLE REVENUE
- reduce underwriting turnaround time by up to 25%
- increase risk selection and pricing accuracies by up to 20% due to external data enrichment, prefill, and profiling

EXPENSE REDUCTION
- Reduce underwriting expenses by up to 15% with optimized site-inspections through prioritizations using prefill and granular risk scoring

ENHANCED EFFICIENCY
- Improve operational efficiencies by up to 30% from reduced UW turnaround time and qualified risk measures

COST AVOIDANCE
- Avoid costs of up to 40% by using the sustainability data hub platform
- Eliminate development costs of up to 60% with pre-built accelerators, ready to deploy application, and models

LET'S GET STARTED

Strengthen your property insurance operations with the power of a robust, multi-sourced data and insights solution.

We'll help you to lessen premium leakage, increase risk selection and profiling accuracy, reduce protection gaps, and increase product innovation. And a return on your investment can begin quite quickly. Our platform's API-driven customizable models, rapid prototyping and onboarding, data enrichment ecosystem, and easy workflow integration allows us to bring your use case to life in as little as 16 to 22 weeks.

Let's explore together how best to help you encourage sustainable property growth, promote resiliency in community development, and innovate to increase customer engagement and revenue growth.

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