Straive™

Connecting the dots

Unlocking Data's Power for the Insurance Industry

WHITEPAPER

Driving Value from Data

Insurance companies require data to reach optimal levels of success. While the industry has always had a wealth of data, it's only in recent years that there has been a real push to monetize this vital asset.

However, from underwriting and risk assessment to claims settlement and customer interactions, insurance enterprises today produce and deal with vast volumes of unstructured data—one of the industry's significant challenges. For example, forms and claim settlements — including images, emails, and other documents — contain precious data that can empower insurers to create holistic views of their customers and optimize processes. There is a growing need to capture various data elements residing in varied sources and diverse formats and unlocking qualitative actionable insights.

For example, Straive's proprietary data management platform, Straive Data Platform (SDP), can help accelerate, improve, and streamline rooftop damage analysis and estimation. Until recently, insurance companies had to conduct manual onsite inspections or agent reviews for more minor claims. While drone imagery solutions have helped reduce onsite inspections and improved the claims processing time, it still requires a manual agent for review. As such, SDP accomplishes the following processes:

- Image preprocessing for optimal image identification
- A Before and After comparison of imagesto identify the damage percentage and further map to square feet to estimate the damaged area
- Scraping and tracking of roofing material pricing to help feed the damage estimation.

Moreover, the insurance industry also faces a profusion of data from various connected devices. Telematics devices, like vehicle sensors and GPS trackers, consolidate real-time data on driving behavior, speed, acceleration, braking patterns, etc. Insurance companies use this data for insights to offer usage-based insurance plans, where premiums are tailored to individual driving habits; the possibilities are vast.

Strengthening Risk Mitigation and Decision Making

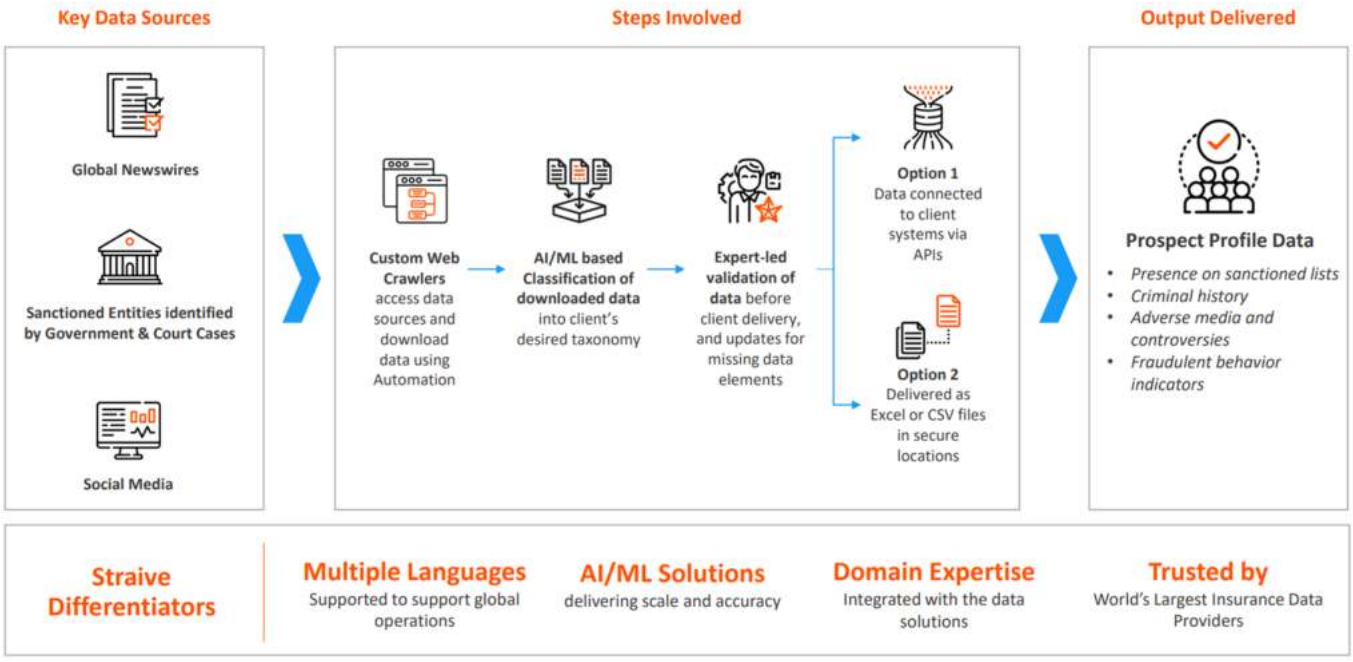
The insurance industry needs data-driven tools to convert a goldmine of data into usable insights. Technology is proceeding rapidly to connect the dots in understanding customers and risks, and data-driven strategies are at the center of these operations.

An overwhelming quantity of enterprise data in the insurance sector is unstructured. Other hidden and alternative data varieties emanate from sensors, satellite images, traffic cameras, and others. Robotic process automation (RPA) does a great job with structured and even semi-structured data sets; however, they perform less well with unstructured data.

Artificial Intelligence (AI) and Machine Learning (ML) based capabilities to deal with massive amounts of data are key differentiators. Straive integrates and manages data originating from diverse sources—such as criminal records, climate risk data, weather forecasts, and vehicle records, etc.—to enhance decision-making in all core insurance activities, from actuarial risk assessment to premium pricing, coverage terms and conditions, and loss adjustment.

Moreover, our solutions help insurers identify fraudulent claims by detecting inconsistencies in policyholder behavior or activity, which allows for proper risk mitigation and protection against financial loss.

Exhibit 1: Straive's Insurance Data Processing Solution



Source: Straive

AI/ML-led data analytics can enhance the claims management process by streamlining operations and automating claims processing using ML algorithms. Insurers can quickly evaluate claim validity, assess damage costs, and accelerate payouts. Moreover, predictive analytics can assess the likelihood of claims and earmark resources accordingly.

For example, Straive's services around claims processing focus on reducing the time spent by agents on processing every claim and making data easy for any downstream audits.

We can effortlessly extract data from forms, reports, emails, and other free-form text with our Text Intelligence solutions and SDP. Our platform can be customized either to extract sentiment or a more customized concept extraction exercise. Using SDP, we also help reduce any agent bias that may creep into claims processing. By working closely with our clients, we define each data point and utilize a strictly agnostic platform to cover the heavy lifting in extraction so that the human layer is only involved in curation.

Additionally, as paperwork continues to be filed at all odd hours, SDP can also act as a classification engine, identifying the received document types, flagging important and missing documents, and identifying any potential issues at this point rather than later.

Using SDP, insurance companies can ensure their agents are more focused on higher-value tasks than data extraction. With an average scale-up time of four weeks, Straive provides solutions for all your needs to improve the claims process. There are several other use cases possible.

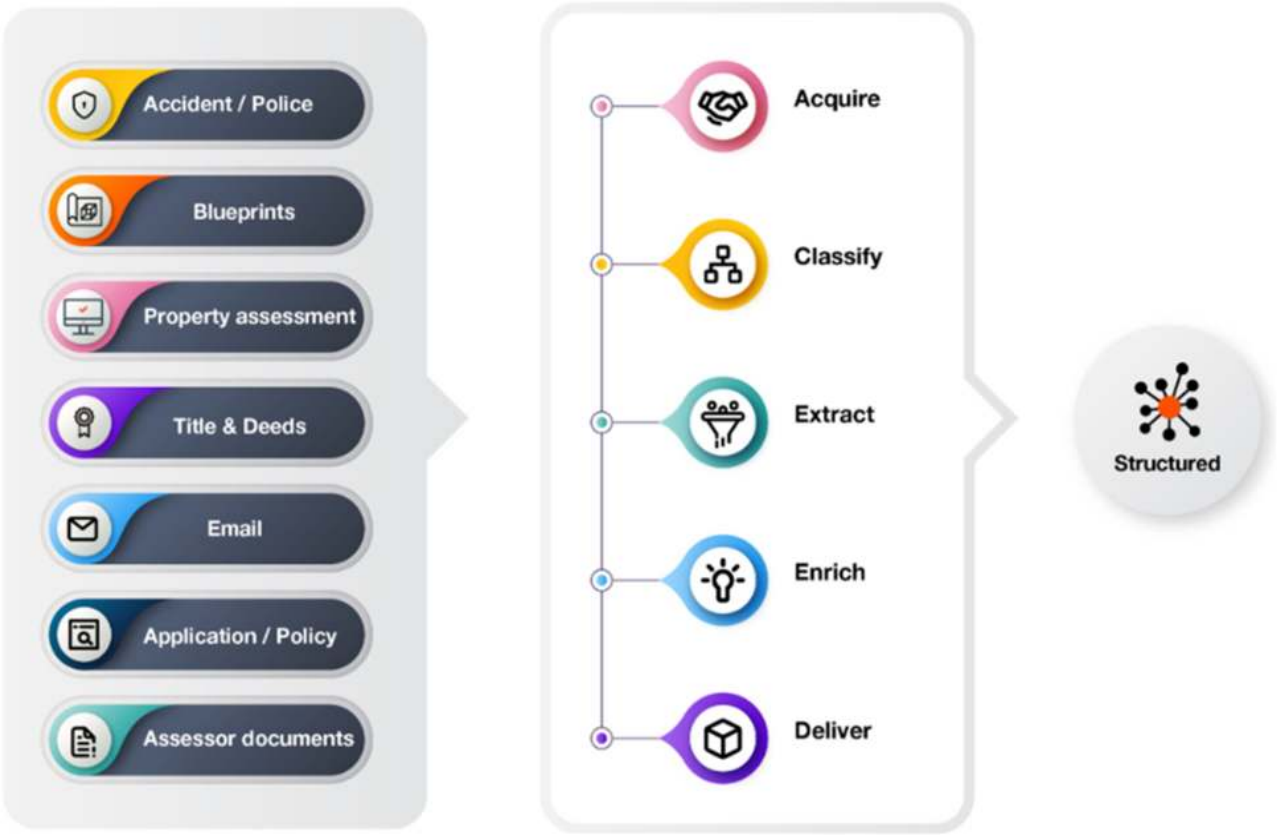
1. Enhancing the KYC process during underwriting by automating document classification and extraction to optimize customer onboarding.
2. Extracting entities and critical metrics from forms and external sources for underwriters to evaluate risks.
3. Assisting damage identification and payout estimation for Property and Casualty (P&C) claims settlements.
4. Enabling search for contracts, emails, forms, and other interactions for future audits and compliance purposes.

From rooftop damage analysis to the extraction of relevant data from the many reports in the claims process, SDP can be customized to any insurance provider's unstructured data needs quickly and at scale.

Effectively Unlocking Unstructured Data

Effectively unlocking unstructured data is crucial for supporting everyday practical operations at speed, scale, and quality. For insurers, unstructured data solutions focus on automating the capture and consolidation of data from various sources in diverse formats. Because they do not have a definite form, unstructured data cannot reside logically in a tabular row-and-column format.

Exhibit 2: The journey from unstructured insurance data into structured formats



Source: Straive.

Examples of unstructured data in handling insurance claims include—

- Photos showing auto damage,
- Driving license PDFs, and Medical scan reports for health care claims processing, among others

Reliably extracting and interpreting unstructured data are keys to accurate, speedy, and high-quality claims processing. Straive's data solutions for insurers focus on automating the capture of unstructured data residing in varied sources and diverse formats and unlocking qualitative actionable insights.

Exhibit 3: Straive Case Study on Identifying Location Risk from Satellite Images

Client Requirements: Client is a global provider of data-driven insights to the insurance sector and wishes to supplement their existing Real Estate data with information gleaned from Satellite images to create comprehensive risk profiles for properties

Untested Process	Large volume of Satellite Images	Several asset types such as trees, pools, solar panels

Straive Solution

- Monitor and Scrape images provided by client and pre-process them, so they are ready for extraction
- Identify and demarcate assets required by the client on the images using AI/ML pattern recognition models, trained on a set of annotated images
- Assets identified include trees, rooftops, solar panels, lanes, swimming pools, etc. that can provide valuable information about the risk profile for a property
- Automated validation with Human-in-the-loop to ensure accuracy of the assets identified
- Detailed reports for properties that capture additional information compared to the data from traditional sources such as title deeds and surveyor reports

Identifying trees, roofs, pools, streets and solar panels from Satellite images

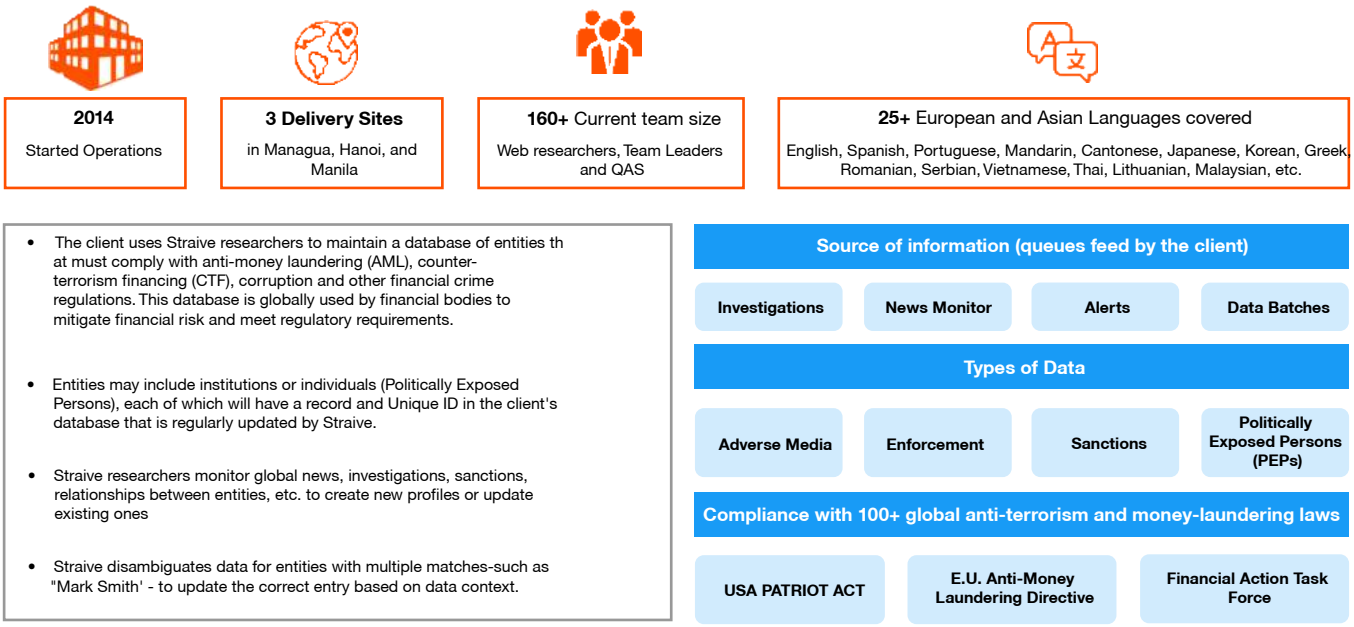
Benefits Delivered

- Introducing automation to unlock value from Geospatial images and deliver improvements to existing risk profile information for properties, that is now used by insurers globally that access our client's Insurance products
- A future-proof solution that can handle large volumes as well as new asset types

Source: Straive.

Using SDP, Straive helps insurance companies accelerate customer data acquisition from unstructured data, both internal and external, to get a complete view of customers in the underwriting process.

Exhibit 4: Straive Case Study for Creating Global Entity Profiles for Insurance Data Providers



Source: Straive.

The importance of automation is steadily growing for insurance companies. Platforms for end-to-end workflow automation (like RPA) are popular, but now the demand is to move to intelligent automation using unstructured data, and experimenting with a simple proof of concept and scaling is often the best bet.

Remove Bias and Boost Reliability

Ultimately, AI-driven automation and advanced analytics help companies better understand and serve their customers.

Apart from the expenses and longer turnaround time associated with manual data extraction, agents tend to bias the data process. Straive works closely with claim agents to understand their end data goals and customize SDP specifically to those needs. Further, SDP uses a combination of rules-based and Machine Learning auto-extraction techniques with human curation to maintain high levels of accuracy.

About Straive

Straive is a market-leading content technology enterprise that provides data services, subject matter expertise (SME), and technology solutions to multiple domains, such as research content, eLearning/EdTech, and data/information providers. With a client base scoping 30 countries worldwide, Straive's multi-geographical resource pool is strategically located in seven countries - the Philippines, India, the United States, Nicaragua, Vietnam, the United Kingdom, and Singapore, where the company is headquartered.

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