

The logo features the text 'iAi Intelligent AI' in white. The 'iAi' is enclosed in a red square, while 'Intelligent AI' is written in a sans-serif font to its right. The background of the entire page is a night-time photograph of a city skyline with illuminated buildings and a bridge over a river.

iAi Intelligent AI

Transforming Commercial Property Risk with the IoT

**Harnessing the power of data
and the Internet of Things**

A report from Intelligent AI, examining the impact of rapidly-emerging AI and data-enabled transformation on the commercial property sector.

2021

intelligentai.co.uk

Transforming Commercial Property Risk with the IoT

A report on rapidly-emerging AI and data-enabled transformation in commercial property management.

Introduction Anthony Peake, CEO of Intelligent AI

The commercial property insurance market of 2021 is ripe for modernisation. Loss costs and expenses remain too high, as evidenced in Lloyd's commercial property insurance results, which show a loss of £2.6bn for the period 2016-2019; driven by increases in both man-made and natural hazard losses.

Whilst insurers work hard to improve their performance and deliver an acceptable return on capital, it is the customers who are losing out, paying in excess of 30% of premium on non-risk bearing activities. This means means inefficient operating costs and commissions, so costs are artificially higher than they could be with a more digitised industry. The hardening market further affects customers, with inevitable increase in premiums and restrictions in both coverage terms and available capacity.

There is however a silver lining. Technology and data-enabled solutions are creating the tailwinds for change. It is vital the market embraces these opportunities to rethink how it serves its customers; the buyers of its products and services.

In this Whitepaper, we explore the reasons why the existing business model isn't working and provide a vision for change, which has the potential to reshape property risk for the benefit of insurers, brokers and customers.



Anthony Peake

Highly experienced, results-focused CEO of Intelligent AI, Anthony has over 30 years proven success in building companies, products and innovation strategies, at major blue-chip corporations and start-ups including Oracle Corporation, British Telecom, General Electric, Apple Computer. He has previously delivered leading risk management systems for 6 of the top 10 UK insurers.

Anthony has led the transformation of many industries including telecoms, local government and retail, and is passionate about transforming the insurance industry to the benefit of insurers and customers.

Foreword

The Internet of Things (IoT) is opening up potential opportunities at an incredible pace. Security, heating, machinery, air-conditioning, lighting and other functions are rapidly being connected to the internet.

Buildings are becoming 'smart' and delivering vast amounts of data through real-time connected devices integrated with the Building Management Systems (BMS) that can be used to monitor, predict and prevent loss.

The intention is to produce a more sustainable and resilient building, which has tangible insured and uninsured benefits for customers, insurers and brokers.

As well as protecting the internal building environment from aspects such as water leaks or machinery wear, sensors now integrate external factors such as weather threats combining to establish a 360-degree view of risk in real-time.

In the insurance sector, IoT enables customers to take action proactively rather than reactively to reduce or prevent risk based on real-time alerts and data.

This whitepaper sets out the benefits and opportunities presented by IoT and considers some of the challenges the industry faces as it embraces this technology, especially around data capture and analysis.

Forward-thinking insurers and brokers will invest in IoT to deliver risk management services to their customers, understand risks better, and gain a competitive advantage. With the significant ROI available, can you afford to be left behind?

Neil Strickland,
Commercial Director
of Intelligent AI



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This whitepaper was produced in partnership with the SENSE Consortium.

The SENSE Consortium is a new UK thought leadership group operating in the insurance space. SENSE is a collective of leading Insurers, Brokers, Corporate Customers and InsurTech solution providers, including representatives from Lloyds of London, Zurich Insurance, EY, and is part of the Camelot Network. The group's common goal is to revolutionise the commercial property insurance sector and reduce the total cost of risk through better use of data and cutting-edge risk management technology.

Improving the Business Model

The commercial property insurance market in 2021 is ripe for modernisation.



The commercial property underwriting model suffers from inertia and trapped inefficiencies. Business processes have evolved slowly.

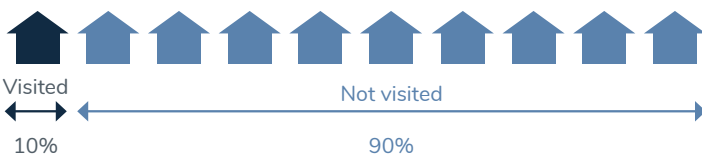
Most insurers still do their risk selection, decision-making and pricing on an annual cycle, based on historical data provided by the customer and their brokers.

There is very little transparency in how data is shared across the ecosystem. Too much time is spent on administration and not enough on understanding risk and proactively managing it.

The model needs to switch to ensure better insights on the drivers of underlying performance within a portfolio, using the power of data.

Lack of visibility

A typical insurer can only afford to send risk engineers to 5% -10% of insured locations representing just 20%-25% of the risk exposure.



Therefore, most insured properties are not visited, and the statistical models used to predict the risks in the 90%+ of unseen locations are inevitably prone to error. It leads to unknown exposure and large unexpected losses.

Poor information

Where risk engineers do visit customer sites, this is likely only once every 3 years. There is inconsistency in information, descriptions and layouts, making it hard for underwriters and customers to consume, analyse, and take action.

This has resulted in only 1 in 7 identified risk improvements being resolved by larger customers*.

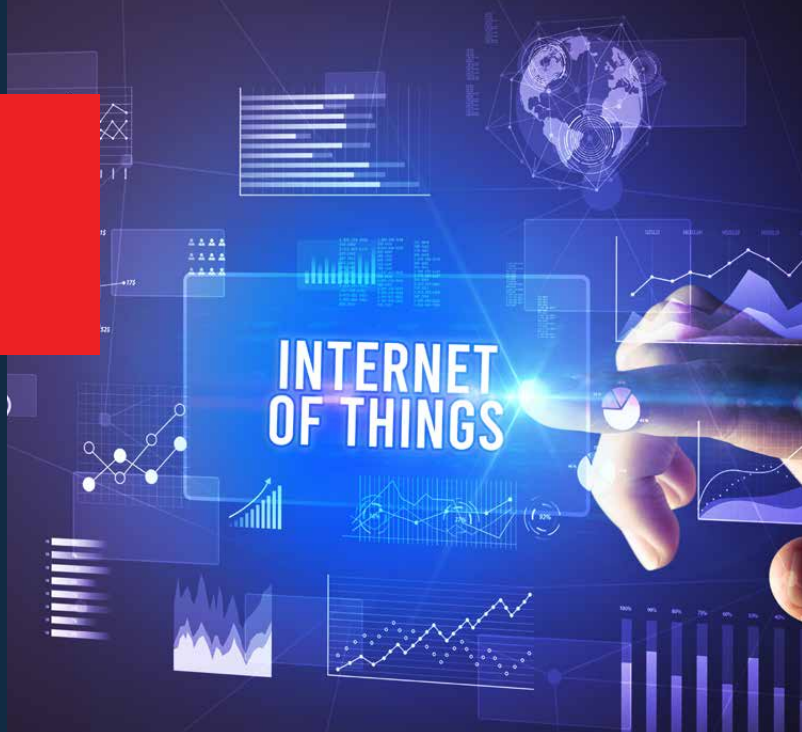
Data solution

Whilst one cannot underestimate the value of having an experienced risk engineer on site, there is clearly a need for improved data-driven insight.

*Based on an analysis of over 10,000 risk mitigations, carried out by Intelligent AI Limited in 2020

Driving Change with the IoT

Commercial property customers can benefit from external and internal IoT to predict and help identify and notify in real-time when something is about to go wrong.



Internet of Things (IoT) technology is one of a number of technologies that is shifting the market towards data-driven, real-time risk management.

Accelerated change

As with telematics in the motor market, IoT and other disruptive technologies are revolutionising commercial property risk management. Whilst it has taken time to penetrate the commercial market, the pace of adoption of these technologies is increasing, and there are clear benefits to exploring opportunities.

Customer benefits

Customers can benefit from external and internal IoT to help identify and notify 'when something is about to go wrong'.

Take just one area - climate. IoT weather sensors can provide forecasts of hail and other weather events that customers can use to enhance their risk management and assist the claims process.

Data insights allow for proactive and predictive risk maintenance in a range of ways.

Data from BMS

IoT in commercial buildings enables real-time data extraction from Building Management Systems (BMS) to monitor, predict and prevent loss.



IoT in practice: case studies

IoT can help in reducing claims, keeping customers safe and lowering insurance costs for all.



Avoiding Water Damage and Mould

The problem

Heating, ventilation and air conditioning units had caused a slow leak and build-up of moisture.

IoT solution

The build-up of humidity was detected by data feeds from IoT devices and repaired before any material damage was sustained. This type of leak was not detectable through normal 'human' means, e.g. risk engineering assessments, normal maintenance cycles etc.

The result

Because the leak included air handling units serving the main offices and IT room, further damage, cost and business interruption, was avoided.

Enhancing Fire Safety

The problem

A customer wanted to monitor their sprinkler system using sensors attached to key equipment - jockey pumps, generators and back-up generators.

IoT solution

Using their overall building IoT device, data was collected providing a holistic view of their operations.

The result

Sensors detected a pump switching on 4-5 times per hour instead of per day. The IoT device detected damage. A leak was found and fixed, saving money and a potential worsening problem, risking business interruption, if it had gone unnoticed.

Sustainability Benefits

The problem

A customer's heating and cooling devices were coming on at the same time.

IoT solution

The IoT sensor picked up the issue and action was taken to optimise when heating and cooling operate.

The result

Alongside risk management benefits, the return on investment for the IoT project has been proven to be self-funding, with potentially costly problems identified and resolved fast.

Intelligent AI benefits

- Real-time risk information
- 360° view of risk
- Proactive Risk Mitigation
- Improve health and safety
- Lower insurance costs
- Benchmark risk across sites
- Reduce business interruption
- Bespoke AI Risk Report Analyser and SurveyRisk platform

Challenges

The cliché of ‘we don’t have a technology problem, we have an adoption problem,’ also applies to IoT-enabled risk management in the commercial property market.



Breaking down silos

To underwrite a commercial property risk, there are often four viewpoints needed: underwriter, pricing actuary, risk engineer and claims expert.

These functions must collaborate to stitch together all the intelligence and data for each policy and all insured locations. This is often a manual task as data is often disconnected.

Maintaining Data

Only 5-10% of insured properties are visited by risk engineers, so underwriting decisions are made using incomplete data. Customers often struggle to properly differentiate their risk in the marketplace through not having the right data. New developments in Digital Twins of risk, for example, can help solve this.

Lack of data to model exposure

A key driver for change is the analysis of claims’ trends over time. As more external data is sourced to complement existing data sets, more granular analytics on exposure data can identify clusters of similar claims and help direct risk management activity. But this takes time and hinders the development of rapid solutions to mitigate loss sooner.

Experience in real-time data

Due to the size and scale of commercial property risks, many policies are underwritten on a subscription basis. Each subscribing underwriter can have different systems and processes. This makes it harder to act upon real-time data.

Many insurers also lack the technology experts and data scientists to augment the underwriting process and grasp the potential opportunity. To overcome this challenge, the market will need to collaborate to change for the benefit of the overall ecosystem.

Overcoming the challenges

- Developing leaders who understand AI opportunities
- Collaborating across industries
- Learning from the data
- Looking to best practice

Benefits

- Improving your service
- Reducing costs
- Freeing up your people to do great work

The Opportunity

The need for this digital-led transformation is significant and urgent. Intelligent AI is at the forefront in being able to provide immediate value to insurers, customers, brokers and consulting companies.



IoT is driving insights into commercial property risk and risk mitigation. New sources of data can be extracted and used in risk management to help modernise commercial property underwriting and provide greater value to customers of commercial property cover.

Real-time data can drive proactive risk management, prevent losses and enable the competitive pricing of known risks, moving away from a system based on incomplete and historic data.

Real-time, accurate data on risks, and risk mitigation, provides actionable insights that could ultimately help to prevent catastrophic incidents like Grenfell Tower.

Anthony Peake, CEO of Intelligent AI comments:

“Customers already using IoT in property know there are immediate financial returns and quantifiable benefits based on energy savings, sustainability, and asset optimisation.”

Extending those benefits with data-driven risk management and supporting insurance propositions will be a major competitive differentiator for insurers, as market conditions continue to harden and make additional value-add services important.

Anthony adds: “Research suggests that the use of AI, Digital Twins and IoT can help save the commercial property sector over £500m per year. At the same time, customers will benefit from mitigated health and safety risks, lower premiums and greater business resilience.

“Intelligent AI is helping the insurance ecosystem improve its understanding of risk, and make insight-led decisions in a timely and efficient manner. The need for this digital-led transformation is significant and urgent.

“Intelligent AI is at the forefront in being able to provide immediate value to insurers, customers, brokers and consulting companies.”

In the next edition of this white paper series, we will be looking at: **Digital Twins of Risk - using digital blueprints to provide comprehensive, real-time data of sites.**

This will be available at: **intelligentai.co.uk**

About Intelligent AI

Intelligent AI is focused on helping to deliver the data transformation shift now underway.

For insurers, brokers and customers, we provide enhanced understanding of risk, better decision-making and improved client journeys through exceptional data insight and real-time document processing using AI, satellite image analysis, data analytics, online risk survey tools and digital twins.



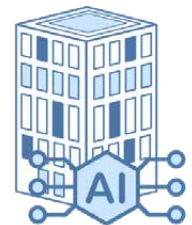
Intelligent Risk Management



AI Risk Report Reading



Online Risk Surveys



Digital Twins of Risk

Benefits for Corporates

- Proactive risk mitigation
- Improve Health & Safety
- Lower insurance costs
- Benchmark risk across sites
- Reduce business interruption

Benefits for Brokers

- Gain lower premiums for customers
- Help customers to lower risks
- Parametric claims management
- Real-time risk data
- New AI insurance products

Benefits for Insurers

- More accurate risk pricing
- Lower cost reinsurance
- 100% portfolio coverage
- 360o view of risk
- Lower claims & operating costs

Intelligent AI is working with Exeter University, The Digital Catapult and The Alan Turing Institute.

Intelligent AI is a consortium member of a £2M Innovate UK funded 'KnowRisk' project that brings together data and deep domain expertise from Insurance, Legal, Audit and Supply Chain to revolutionise global risk management.

This white paper was produced in partnership with the SENSE Consortium.

Discover the benefits of working with Intelligent AI

To find out more about our products or to book a consultation, please visit: intelligentai.co.uk/contact or email: info@intelligentai.co.uk



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