expert.ai



AI to Support
Risk Engineering

Risk Engineering in Context

Risk engineering helps commercial insurance organizations to prevent losses and streamline the underwriting process through structured risk assessments. This can be done in house (i.e., on-site visits or desktop reviews) or via third-party risk reports.

While the result is always an overall risk assessment for a specific object (e.g., building, factory, production process, etc.), the underlying risk-grading methodologies vary by the internal standards of the organization creating the report. The only way to consistently align standards is to analyze each risk report individually and translate it according to the in-house standard which is expensive, time consuming and prone to interpretation and error.

The typical process is as follows:

- Read and understand **third-party risk reports** to assess the risk (e.g., the risk of fire for a specific property location).
- Manually detect **risk factors** for each location.
- **Translate each risk factor** into the internal grading scale.
- Determine the **overall risk score** for each location.

Given the complexity and breadth of risk assessment documentation, artificial intelligence has become key to automating this process by reading all the available documents and aligning the content consistently to the target in-house risk grading standards.

At expert.ai, we leverage natural language understanding and natural language processing to augment human capacity. This helps risk consulting teams to accelerate the analysis of documentation, expand the quantity of reviewed accounts and enable experts to focus on more valuable tasks.



Pain points:

› **Limited capacity and peak-loads:** Bottlenecks during renewal periods and time-critical quotes

› **Lack of consistency:** Big variance due to individual interpretation

› **High cost:** Time-consuming process executed by expensive risk specialists

Put expert.ai Technology to Work

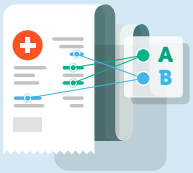
Expert.ai artificial intelligence technology mimics the human ability to read text and understand language with one of the highest accuracy levels available on the market. Expert.ai technology helps insurers to increase efficiency, reduce costs and improve the overall quality of customer service.



1.
Expert.ai technology reads and **understands** risk reports



2.
Identifies the **risk elements** across the entire report



3.
Assigns a grade to each risk element applying a custom **grading** scale (e.g., A-D, 1-5)

4. Detects the occupancy of facilities by applying standard taxonomies (e.g., NAICS, SIC, etc.)

C RF01 - Fire Divisions + Layout & Design	E RF04 - Contractor Controls	B RF07 - Impairment Handling & Loss Prevention	A RF10 - Electrical System & Equipments	C RF13 - Storage	A RF16 - Security Controls & Arson Exposure	C RF17 - Process Controls
B RF02 - Construction Combustibility	C RF05 - Housekeeping & Smoking	C RF08 - Sprinklers & Other FFP	B RF11 - Heating & Cooling	C RF14 - Liquid, Gas, Dust Hazards	A RF18 - Pre-Emergency Planning & Nat Cat	C RF19 - Fire Brigade & Water Supplies
B RF03 - Hot Work	C RF06 - Maintenance Procedures	B RF09 - Fire Detection	B RF12 - Incidental Hazards	B RF15 - External Exposures		

RF11 - Heating & Cooling B

Lane Buildings that did not adequately secure their HVAC units have now secured them to wood or metal bases. Bases that were previously not secured by 4x4 wood with outriggers led to dislodged HVAC units from heavy winds, resulting in loss of units and damage to roofs.

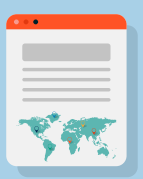
Comments: There are 4 of these plates that were installed as HVAC defectors.

Refrigeration Systems: There are freon-based HVAC systems only.

Cooling Towers: Noncombustible located on the roofs for the HVAC systems.



5.
Evaluates the different risk elements and returns an **overall score**



6.
Aggregates the information **by location** (multiple locations in the same report, many reports for the same location)

KPIs and ROI

By automating the reading and understanding of risk reports that describe the facilities to be insured, we help you identify your ideal premium. This allows risk engineers to allocate more time to verification of more complex cases and help underwriting teams turn around quotes for new policies faster.

Expert.ai technology extracts the knowledge and insight from 100-plus-page surveys within minutes:



More Efficiency



Increased Sales Capacity



Faster Processing Time



Reduced Risk Exposure

Test Drive expert.ai Technology on Your Documents

Learn more about our free feasibility assessment and our deep dive workshop. Contact us at **insuranceteam@expert.ai**.

Case Study: **Read how AXA XL successfully implemented expert.ai technology for risk engineering**.

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