

# Risk selection at the era of AI

Using Data, Risk knowledge and AI to shape the **next generation** of Underwriting solutions

SOA - AI for Reinsurer

February 2026

The SCOR logo is displayed in a white, stylized font with a blue glow effect. It is positioned on the right side of the slide, set against a dark blue background with a complex, geometric pattern of lines that create a sense of depth and movement. The pattern consists of many thin, parallel lines that curve and converge towards the center, creating a tunnel-like effect.

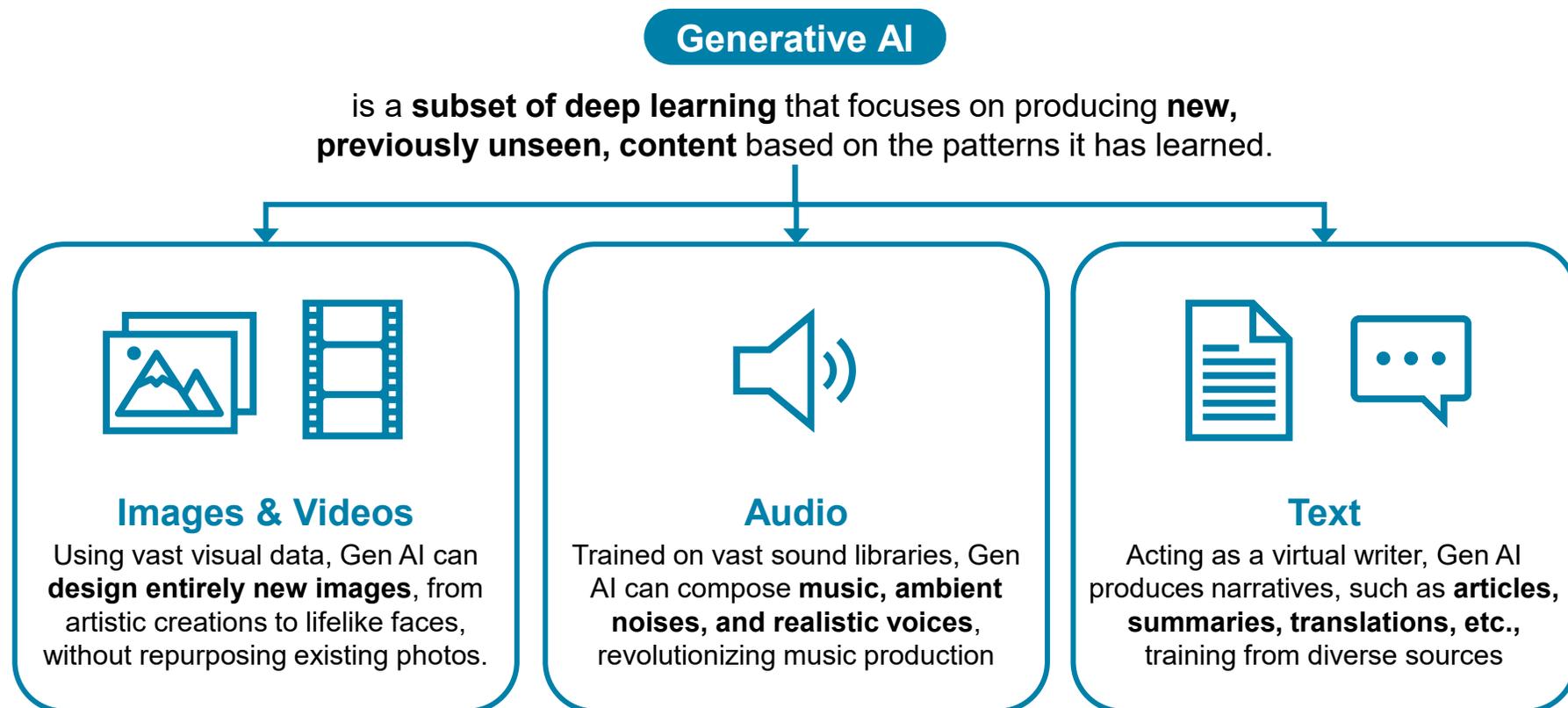
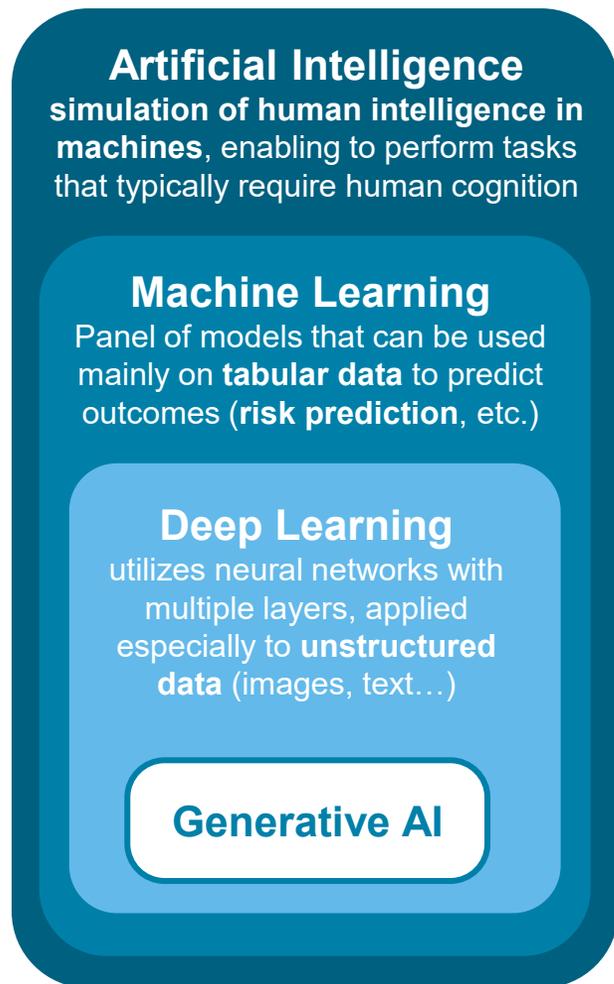
# Introduction

# Transformation of the UW

Key drivers, business goals and  
anticipated impacts

## Context

Back in 2022 when Open AI launched Chat GPT, we realized the revolution that Gen AI was about to start



## Context

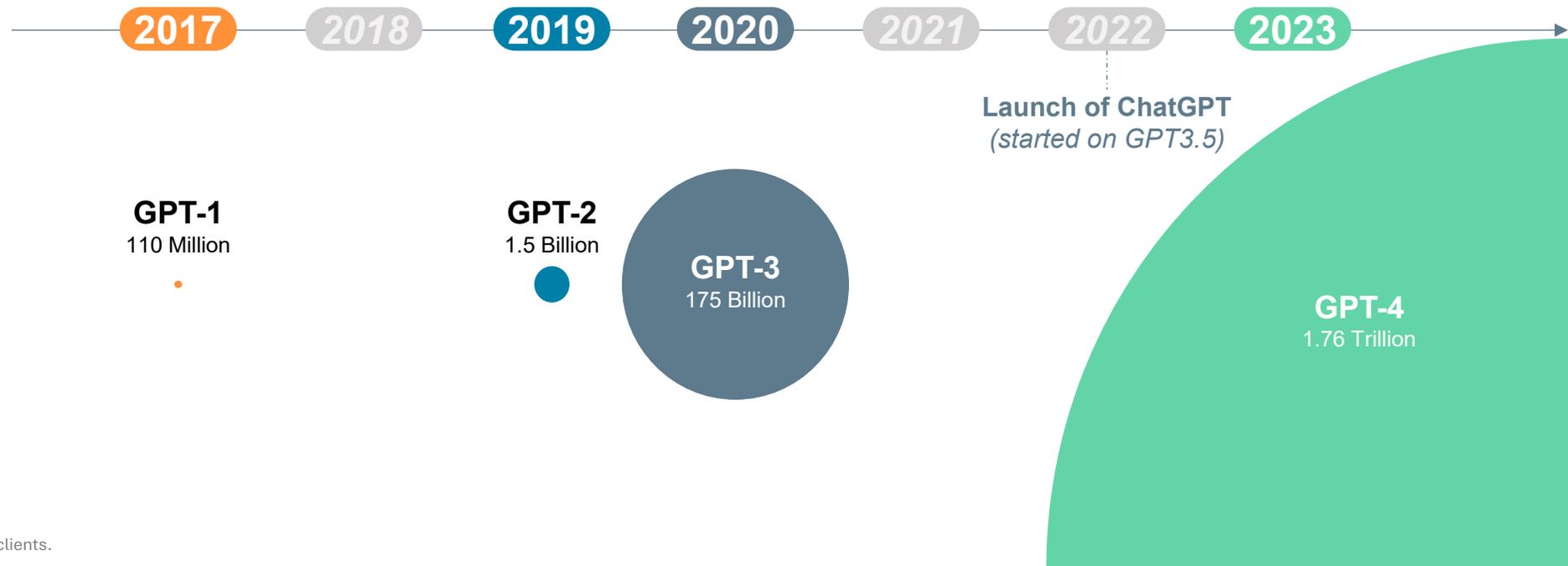
Since then, technology has never stopped progressing, and we are everyday blown away by how powerful AI is becoming

### Generative Large Language Models

- Are trained to achieve one task: **iteratively predict the next word of a given text**
- This type of technology is significantly **more powerful and accurate at analysing and interpreting text** than previously available NLP models (based on Machine Learning)

The models are not new – but the tech is now mature enough to turn them into truly powerful solutions, based on a wide range of parameters

Number of parameters of Open AI's GPT models





2025

**GPT-5**  
17 Trillion

x10 compared  
to GPT-4

At SCOR, as in the rest of the industry, we immediately saw the potential to improve some of our key operations, especially for medical underwriting

## High volume of applications to review

**~100k**

Applications handled by SCOR underwriters across markets each year (fac and treaty)

## Focus on highly complex cases

**~235**

Average number of pages of medical evidence provided to SCOR for a single case

Up 50% vs. 2019

## Significant challenges linked to UW across our global markets



Competition is fierce to **attract the best Underwriters' profiles**



The rise of automated underwriting has made it **more difficult to “train on the job”** through simpler cases

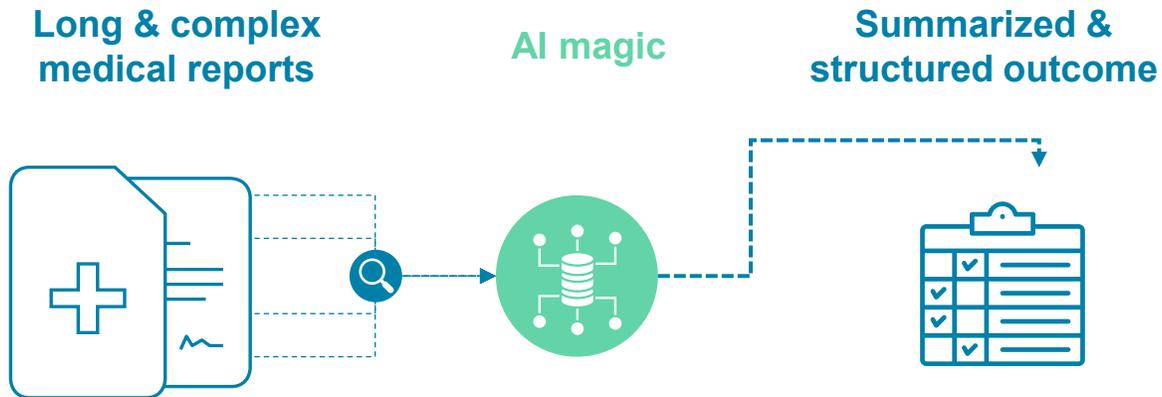


Lots of **legacy IT systems** have proved their worth... but often involve performing non-value-added manual tasks

# AI @SCOR

In 2023, we grouped together at a hackathon in Paris to build our first medical underwriting AI tool...

In 3 days, we had built a first tool helping us summarize and structure medical reports



06/01/2023    Systolic: 145    Diastolic: 90

### Medication

#### Recent Prescriptions

Date	Nature of Medication
16/01/2023	Atenolol 2mg Tab

#### Long Term Medication

Date	Nature of Medication
16/01/2023	Atenolol 2mg Tab

### Confirm

#### Other Factors

Are there any comments you would like to add to this response?

#### Practice Details

GP Name	[REDACTED]	Specialty
Practice Name	[REDACTED]	
Street	[REDACTED]	Suburb
City	[REDACTED]	Post code
Phone No	[REDACTED]	Email
NZMC Number		HPI No (Co Person)

# But building an AI solution that brings meaningful efficiencies takes more than summarizing medical reports

Building an AI solution to support Medical Underwriting involves working along 3 axes, that are deeply interconnected



### Accuracy

**Absolute must** for any AI solution to be adopted, to be optimized across several dimensions:

- Focus on extracting the **relevant information** for medical underwriting
- Focus on **getting that information right**

Involves using our (re)insurance knowledge to adapt AI to our use cases



### Usability

Getting the right information is one thing – **showing it in a way that makes sense and brings value to the underwriter is another**

Building a **user-friendly interface** where underwriters can check AI generated content and find information easily is a must.

Involves building tech features that match and support underwriters' thought process



### Integration

Underwriting processes are today **integrated into a wide range of tools and systems** that have taken years to build (rules engines, workbenches etc.)

While these systems can be rebuilt, AI solutions need to **integrate smoothly with these legacy tools** to boost adoption

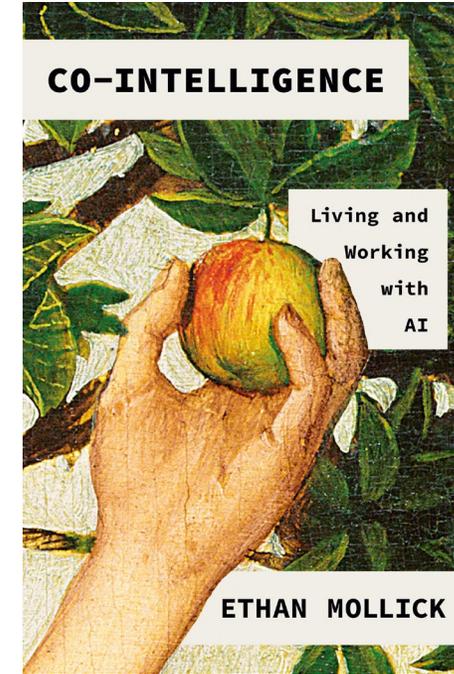
Involves building capabilities that can easily be plugged into legacy systems

# Beyond tech, AI is about transformation

### Tech Alone Isn't the Answer

"AI is not a magic box. It's a force multiplier. If you design the system around it — workflows, roles, and oversight — it transforms what's possible. If you don't, it amplifies your existing mess."

— *Ethan Mollick*<sup>1</sup>, *Co-Intelligence*



1. Ethan Mollick is a prominent academic and thought leader in the fields of AI, entrepreneurship, innovation, and education . Named as one of TIME Magazine's Most Influential People in AI, he is currently Co-Director of the Gen AI Lab at Wharton School

# An example of an industrialization

## Sharing concrete example @SCOR?

## Launched AI Assistant in 2024

### SCOR's Generative AI-Based Medical Underwriting & Claims Management Assistant

Extracts and summarizes scanned and electronic medical reports, in a risk-controlled way.

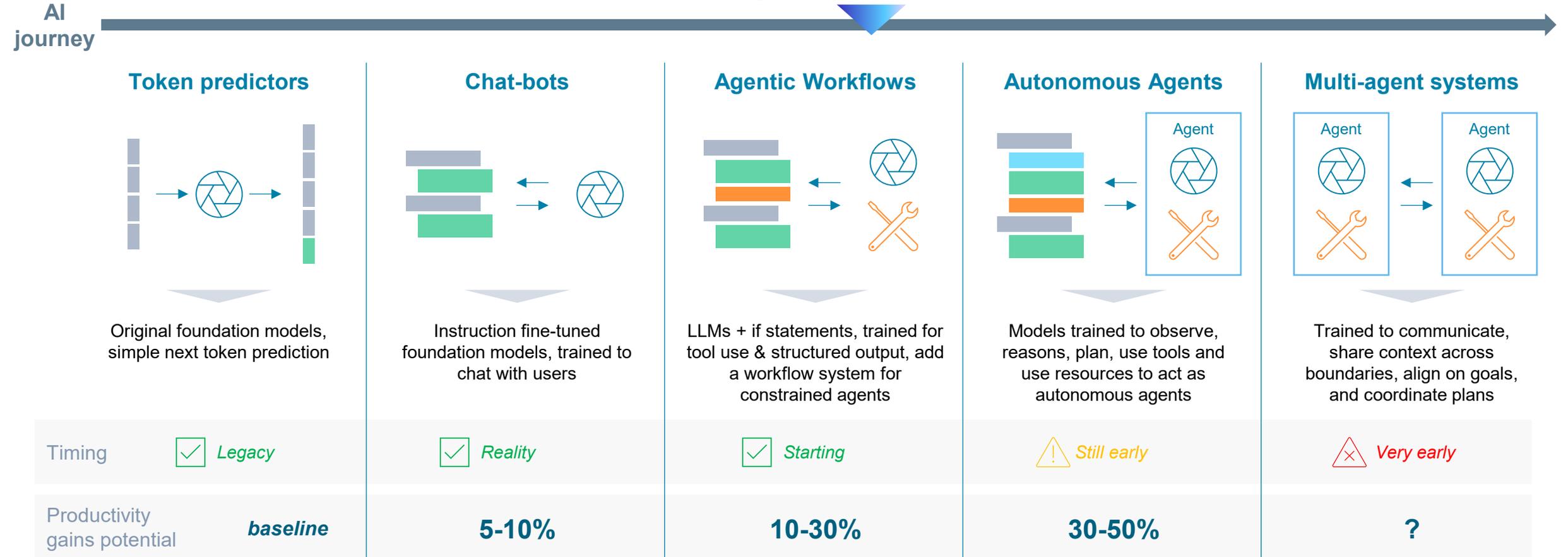


The screenshot displays the 'Allsistant' interface. On the left, a 'Summary' tab is active, showing patient information: Gender (Female), Occupation (Accountant), Citizenship (Information not specified), and Travel (No foreign travel vaccination discussion noted). It also lists Vitals (Height: 175 cm, Weight: 93 kg, BMI: 30.4), Blood pressure readings (145 / 90 on 06/01/2023), Tobacco use (Current smoker, 20 cigarettes per day), and Personal medical history (Hypertensive disease, Asthma, ACL injury, etc.). On the right, a detailed assessment report for 'Application\_Richie.PDF' is shown, including patient details (60-year-old female), assessment impressions (Essential hypertension, Mixed hyperlipidemia, Anxiety disorder, Insomnia, Hyperlipidemia, Radicular pain), and plan orders (Lifestyle changes, lab tests, physical therapy, etc.).

# AI journey

In Life Insurance, it is more than a chat bot – it turns medical reports into structured outputs, specifically designed for medical underwriting & claims use cases

## AI Assistant



# Introducing an example of GenAI industrialization in (re)insurance

## Learning from AI Assistant & UWX – now used by all our medical underwriting & claims teams across our global markets

### Combination of AI and (re)insurance expertise



Built by both our AI and underwriting and claims teams



Combining powerful LLM models (Azure/ Open AI) with knowledge from our Underwriting Manual SOLEM (description of key medical conditions)

solem

~70% Accuracy achieved to 95% depending on fields

### AI Assistant helps visualize and interact with key data points extracted from medical reports

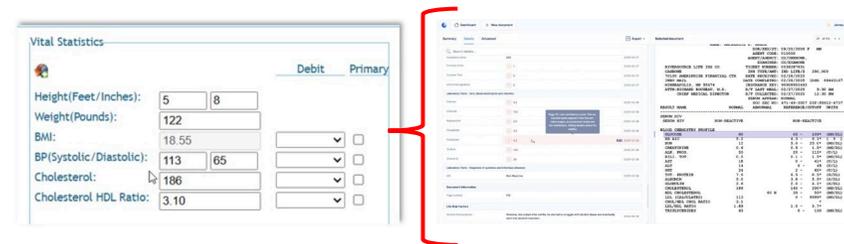
- **Key data fields** extracted from medical evidence, claims and application forms in a structured way
- **Handwritten text capability**
- **Multilingual documents**
- **User interface** listing key details/ fields extracted
- **Click through cross referencing** of content (access to sources in just a click)
- **AI Chat feature** to ask clarifying questions

### AI Assistant is now used by 100+ medical underwriters at SCOR

>15k Documents processed by AI Assistant each month

>1m Pages processed by AI Assistant each month

### Integrated within our UW & Claims workbench



# Introducing AI Assistant

## Introducing AI Assistant – gradually expanding to more use cases and fields

	<b>Personal Information</b> Age, occupation, travel, citizenship...	Live		<b>Symptoms</b> Physical or mental changes that suggest the presence of a disease or a condition	Partly Live			
	<b>Policy Information</b> Coverage, sum insured, product details...	Live		<b>Occupation</b>	Live			
	<b>Vitals</b> Weight and height (BMI), blood pressure, cholesterol, diabetes...	Live		<b>Travel &amp; residence</b>	Live			
	<b>Lifestyle</b> Tobacco status, alcohol consumption, use of recreational drugs...	Live	<b>+ Data from other documents than medical reports</b>					
	<b>Family History and Genetics</b> Medical history about family history and genetics (if permitted by market regulations)	Partly Live					<b>Financial</b> Applicant's financial information (income statement...)	Partly Live
	<b>Health Investigations</b> Medical tests and procedures, treatment, surgical interventions, symptoms, consultations with medical specialists, pending investigations...	Partly Live					<b>Application forms</b> Extracting key information from applicants' disclosures	Partly Live
	<b>Medical Impairments</b> Individual medical history (aligned with SOLEM impairments), organized per key risk category	Partly Live					<b>Claims specific documents</b> Death certificates, claimant statement, payment request...	Partly Live
	<b>Labs</b> Lab measures such as Prostate-Specific Antigen (PSA), Full Blood Count (FBC), Lipids, Liver Function Tests (LFTs), Renal Function Tests...	Live					<b>Past Claims history</b> Individual medical history (aligned with SOLEM impairments), organized per key risk category	Partly Live

**What is coming in the industry?**

# Future of UW Solutions – not only about plan or announcement, it is happening

## Coming years are about taking GenAI to the next level and reinvent our Medical Underwriting solutions

### AI Assistant & UWX

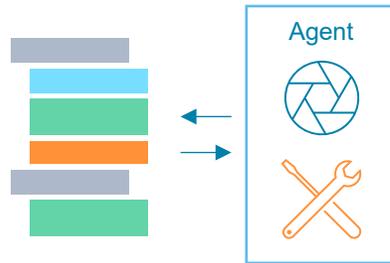


#### Agentic Workflows



LLMs + if statements, trained for tool use & structured output, add a workflow system for constrained agents

#### Autonomous Agents



Models trained to observe, reasons, plan, use tools and use resources to act as autonomous agents

Timing

Starting

Still early

Productivity gains potential

10-30%

30-50%

Example of what we start to observe @SCOR

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### Acting across our 3 key levers



Connection between our **Underwriting Manual** and our **AI solution** to achieve significantly **higher accuracy levels**



Building on the foundational data extraction and **providing risk insights, telling the story of an application** and truly providing value to underwriters



Go further than integrating AI into solutions to **build new AI-powered solutions**, where processes have been fully reinvented.

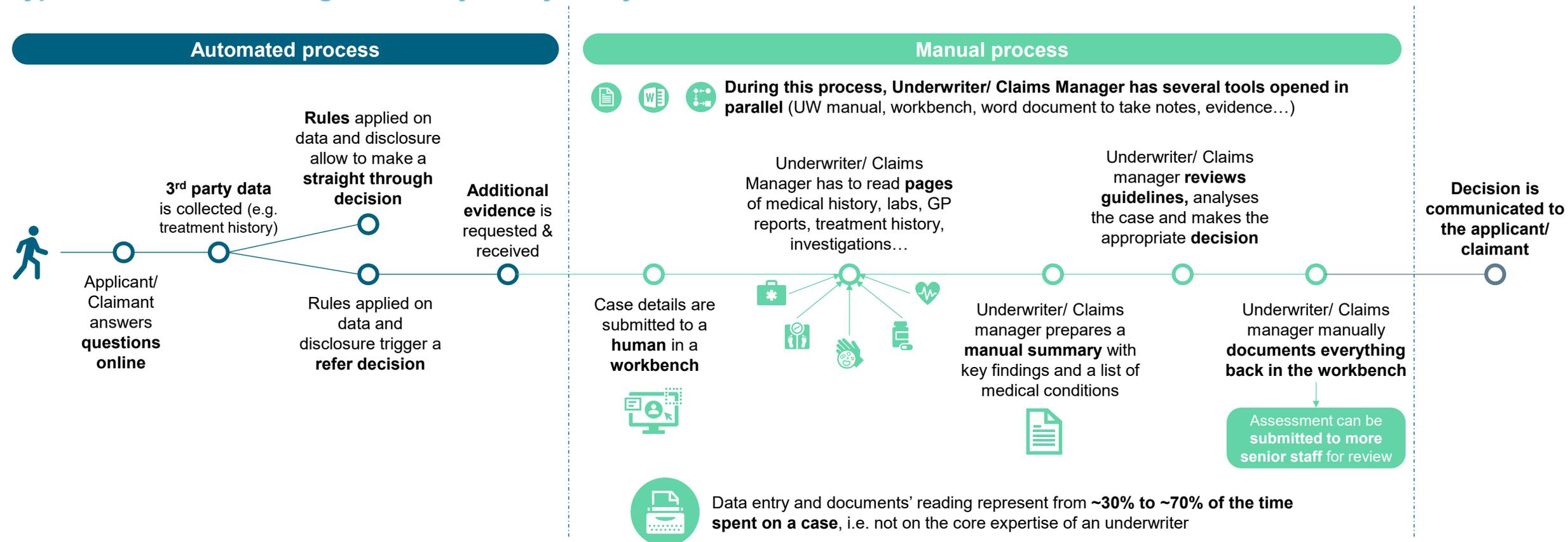
For instance, at **SCOR**, this means building a new **UW Manual**, fully embedded into a new **UW Workbench**



## As is UW Process

# AI Transformation is about moving away from a world of manual, fragmented UW & Claims operations...

## Typical L&H underwriting & claims journey today

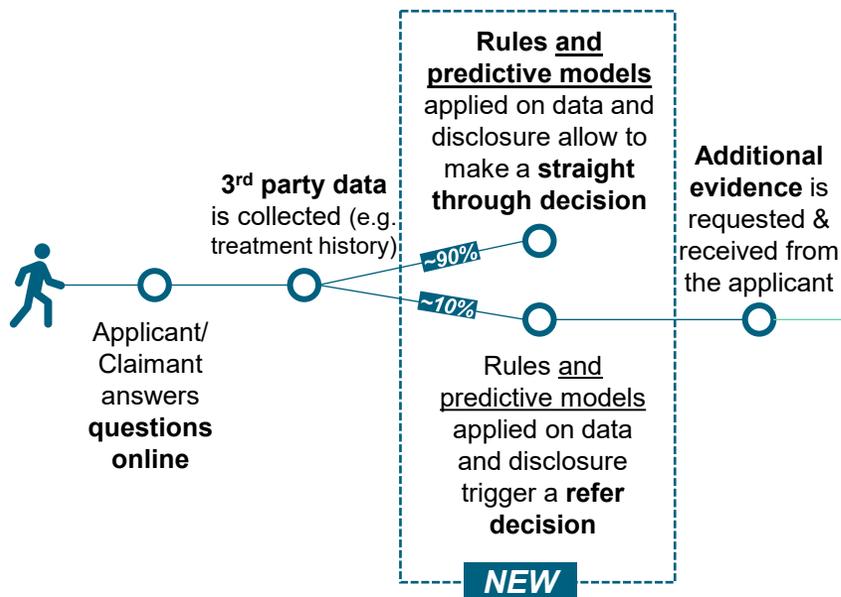


# Agentic UW Process

## ... to a world of “Delegated Underwriting” where AI sets the scene to accelerate human experts’ decision making

### Delegated Underwriting & Claims journey

#### Data driven automated process



Additional evidence is requested & received from the applicant

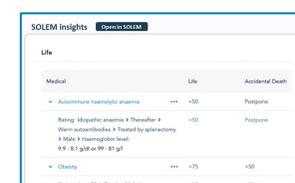
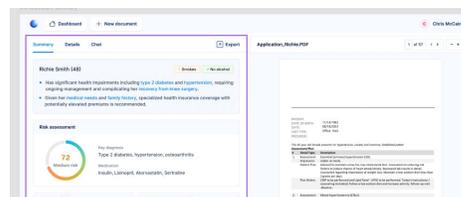
#### **NEW** Augmented underwriting & claims process

During this process, Underwriter/ Claims manager has only one tool opened, acting as a cockpit. Time is fully dedicated to the assessment of the case, lifting the burden of admin tasks. User gets support from the tool at each step of the assessment, reducing the risk of error.

A summary of all the information submitted (disclosures, 3<sup>rd</sup> party data, evidence...) is automatically built through AI

Risk flags are raised to help underwriters/ claims manager focus their review on the most meaningful items

Access to guidelines is granted within the tool itself – with preselected decisions on easiest risks



Assessment is finalized manually. Information is auto saved in the systems – a workflow can also be triggered

Decision is communicated to the applicant/ claimant

**NEW**

Data is collected and analyzed to improve the cockpit, enhance predictive models, identify early signs of poor portfolio performance (once checked with claims data...) etc.



At each step of the process, additional questions can be asked by the Underwriter/ Claims Manager, with answers provided by a conversational agent automatically querying all the evidence provided as well as internal knowledge base

**It is not only about AI but also  
about serving the primary  
focus: Risk Selection**

# For example, we do integrate the capability into the transformative process AI-powered triage and prioritization of applications

The screenshot displays a 'Workbench' interface for managing cases. The top navigation bar includes 'Workbench', 'My cases', 'Unassigned cases', and 'All cases'. The user 'Chris McCain' is logged in. The main area shows a table of cases with columns for Case, Risk, Created, Status, Status changed, and Underwriter. A context menu is open over the 'Sophia Turner' case, showing options: Assign, Unassign, and Remove. A selection bar at the bottom indicates '3 cases selected' with 'Assign' and 'Unassign' buttons. The table data is as follows:

Case	Risk	Created	Status	Status changed	Underwriter
<input type="checkbox"/> Sophia Turner 789012 / 02-02-1985	85/100 Elevated risk	11-03-2022 Chris McCain	Under review	15-03-2022	Chris McCain
<input type="checkbox"/> Sophia Green 987654 / 02-02-1985	85/100 Elevated risk	15-03-2022 Chris McCain	Under review	20-03-2022	Chris McCain
<input type="checkbox"/> Olivier Baker 456789 / 01-01-1977	72/100 Elevated risk	10-02-2021 Chris McCain	Under review	12-02-2021	Chris McCain
<input type="checkbox"/> Samantha Green 987654 / 02-02-1985	20/100 Low risk	11-03-2022 Chris McCain	Under review	13-03-2022	Chris McCain
<input type="checkbox"/> Liam Thompson 987654 / 02-02-1985	10/100 Low risk	11-03-2022 Chris McCain	Under review	15-03-2022	Chris McCain
<input checked="" type="checkbox"/> Sophia Turner 987654 / 02-02-1985	99/100 High risk	11-03-2022 Chris McCain	Under review	13-03-2022	Chris McCain
<input checked="" type="checkbox"/> Sophia Turner 987654 / 02-02-1985	85/100 Elevated risk	11-03-2022 Chris McCain	Under review	15-03-2022	Chris McCain
<input checked="" type="checkbox"/> Samantha Rivers 987654 / 02-02-1985	85/100 Elevated risk	11-03-2022 Chris McCain	Under review	13-03-2022	Chris McCain
<input type="checkbox"/> Olivier Baker 456789 / 01-01-1977	50/100 Elevated risk	10-02-2021 Chris McCain	Under review	12-02-2021	Chris McCain
<input type="checkbox"/> Ethan Carter 987654 / 02-02-1985	35/100 Low risk	11-03-2022 Chris McCain	Under review	13-03-2022	Chris McCain
<input type="checkbox"/> Samantha Green 987654 / 02-02-1985	85/100 Elevated risk	11-03-2022	Under review	13-03-2022	Chris McCain
<input type="checkbox"/> Olivier Baker	72/100	10-02-2021	Under review	12-02-2021	Chris McCain

# Augmenting risk selection for complex cases

# AI-powered risk insights telling the story of the case

The screenshot displays a 'Workbench' interface for a patient case. At the top, there are tabs for 'Olivier Baker - 456789', 'Sophia Turner - 987654', and 'Liam Johnson - 123456'. The current case is 'Olivier Baker - 456789 / 01-01-1977', with a status of 'Under review' by 'Chris McCain'. The interface is divided into several sections:

- Customer overview:** Olivier Baker (Male, 48), 82 kg, 182 cm, non-smoker, abstains from alcohol. Key findings include significant health impairments (Type 2 diabetes, hypertension) and medical needs/family history suggesting elevated insurance premiums.
- Risk score:** A circular gauge shows a 72% 'Elevated risk' score, with a legend for Minimal, Low, Elevated, and High.
- Health overview:** Lists impairments (Type 2 diabetes, Hypertension, Atrial fibrillation, Hearing loss), prescriptions (Alparazolam, Zolipidem, Labetalol), and family history (Parents with type 2 diabetes).
- Documents:** A list of documents, including 'Case\_richie.pdf' (3.5MB).
- AI Insights:** Four key insights are highlighted: 'Higher mortality risk', '40% Risk of stroke increase', and '50% probability of chronic kidney disease', each with a brief explanation of the underlying health metrics.
- Anomalies:** A conflict is noted where the client claims to be a non-smoker, but medical records indicate 'smoking 20 cigarettes daily'.
- Events:** A list of medical events including 'Hypertension Diagnosis' (10-02-2025), 'Knee Surgery (Arthroscopy)' (01-02-2025), and 'Type 2 Diabetes Diagnosis' (03-05-2022).
- Other Metrics:** BMI is 22.8 (Healthy), and BP is 145/95 mmHg.

# Transformation of the underwriting experience

## Comprehensive audit trail

The screenshot displays a software interface for managing underwriting cases. At the top, a dark blue navigation bar contains the 'Workbench' logo and several active tabs: 'Olivier Baker - 456789', 'Sophia Turner - 987654', and 'Liam Johnson - 123456'. A user profile for 'Chris McCain' is visible in the top right corner. Below the navigation bar, the main content area shows the breadcrumb 'My cases > Olivier Baker - 456789 / 01-01-1977'. The case title 'Olivier Baker - 456789 / 01-01-1977' is prominently displayed. To the right of the title, there are dropdown menus for the user 'Chris McCain' and the status 'Under review'. Below the title, a horizontal menu includes 'Summary', 'Details', 'Documents 1', 'Inbox 1', and 'Log & notes', with 'Log & notes' being the active tab. An 'Ask AI Assistant' button is located on the far right of this menu. The 'Log & notes' section features a vertical timeline of events, each with an icon and a timestamp of '10-01-2020, 01:22 PM'. The events are: 'Note' (with a document icon and placeholder text), 'Information verified' (with a checkmark icon, 'Requested: 15-02-2022 / Verified by: Chris McCain'), 'Information submitted' (with a right-pointing arrow icon, 'Requested: 15-02-2022'), 'Information pending' (with a document icon, 'Requested by: Chris McCain'), 'Case assigned' (with a person icon, 'Assigned to: Chris McCain / Assigned by: Jerry Hansen'), and 'Case created' (with a plus icon, 'Created by: Jerry Hansen'). An '+ Add note' button is positioned at the top right of the log section.

# Example of SCOR's new UW Workbench AI-powered assessment module, embedding our UW Manual

The screenshot displays the SCOR UW Workbench interface for a patient case. The top navigation bar includes the 'Workbench' logo and several open tabs for other cases. The main header shows the patient's name 'Olivier Baker - 456789 / 01-01-1977' and the user 'Chris McCain' with a status of 'Under review'. Below the header, there are tabs for 'Summary', 'Details', 'Documents', 'Inbox', 'Log & notes', and 'Assessment'. The 'Assessment' tab is active.

**Summary**

**Elevated risk**  
Has significant health impairments including **Autoimmune haemolytic anaemia** and **hypertension**, also requiring ongoing management and complicating his recovery from knee surgery.

72%  
• Minimal • Low • Elevated • High

**Proposed SOLEM decision**

	COB10 - Death-double effect	COB20 - PTIA	COB30 - Disability
Autoimmune haemolytic anaemia	+25	Standard	Standard
Rating: Idiopathic anaemia > Thereafter > Warm autoantibodies > Treated by splenectomy > Male > Haemoglobin level: 9.9 - 8.1 g/dl or 99 - 81 g/l	+25	Standard	Standard
Hypertension	+50	Standard	Standard
<b>Total</b>	<b>+75</b>	<b>Standard</b>	<b>Standard</b>

**Details per impairment**

**Autoimmune haemolytic anaemia** (+25 Standard Standard)

Autoimmune haemolytic anaemia diagnosed in 2019 was treated with a splenectomy in 2023 due to inadequate response to initial therapies. Latest medical exam shows a **Haemoglobin level of 87 g/l**.

Impairment details

Diagnosis confirmation	Medical-dossier-regarding-loss.pdf - Page 5 (ombs test)	+ 85%
Treatment history	Splenectomy	Edit
Date of Last Treatment	No indication specified or found in provided documents	
Hemoglobin (Hgb) Level	87 g/l	+ 78%

**Hypertension** (+50 Standard Standard)

Hypertension, diagnosed in 2015, is being managed with lifestyle modifications and antihypertensive therapy to reduce cardiovascular risk.

**Autoimmune haemolytic anaemia**

ICD-10 code: C680

Rating Info Notes

**General information**

We require the results of the last haematologic specialist follow-up, which should include comprehensive information about the date of diagnosis, the specific form of the condition, and the etiology or cause of the anomaly. Additionally, we need a Full Blood Count (FBC) that has...

**Related documents** (8)

- Autoimmune haemolytic anaemia... Open
- Autoimmune haemolytic anaemia... Open
- Document 2 Open
- Document 2 Open
- Document 3 Open
- Document 3 Open

**Rating table**

Appreciation elements	COB10 - Death-double effect	COB20 - PTIA	COB30 - Disability
Above information incomplete or missing	Postpone	Postpone	Postpone
Secondary to cirrhosis, malignant lymphoid haemopathy, connective tissue disease	Regret no offer	Regret no offer	Regret no offer
Idiopathic anaemia			
Diagnosis within last 6 months	Exclusion 1	Postpone	Postpone
Thereafter			
Warm autoantibodies			
Treated by splenectomy			
male			
Haemoglobin level			
> 12 g/dl or 120g/l	Standard	Standard	Standard
11.9 - 10.0 g/dl or 119 - 100 g/l	Standard	Standard	Standard
9.9 - 8.1 g/dl or 99 - 81 g/l	+25	Standard	Standard
8 - 7.1 g/dl or 80 - 71 g/l	Standard	Standard	Standard

**Moving from concept to reality**

## AI Transformation is also about tech

# Underwriting manual risk knowledge allows to strengthen the relevance of AI Assistant insights...

### Current AI Assistant capabilities

Focused on extracting a list of impairments, with no knowledge of which risk factors are linked to these impairments



A case is **referred to SCOR**

### AI Assistant

Evidence is **analyzed by AI Assistant**



**Myocardial infarction**

Underwriter **reviews the case** and sees that **Myocardial infarction has been detected** as an impairment... but **not diabetes**, which is an insurable comorbidity



**Diabetes**



This was actually an **AI Assistant error** – Diabetes was indeed present in the case

### AI Assistant capabilities, augmented with UW Manual knowledge

Focused on extracting a list of impairments, with no knowledge of which risk factors are linked to these impairments



**Myocardial infarction**



**Diabetes**

**Myocardial infarction has been detected** as an impairment... but **not diabetes**, which is an insurable comorbidity



**Diabetes**

AI Assistant **connects to SOLEM**, checks for conditions associated to Myocardial infarction and sees that **Diabetes is one of them**



**Diabetes**

AI Assistant **double checks the evidence and spots Diabetes information**



**Connection to SOLEM** allowed AI Assistant to:

1. Identify additional **useful data points**
2. **Display these data points in a way that is useful for the underwriter** (i.e. with Diabetes showing next to Myocardial infarction and not at the other end of the summary)

**Conclusion**

# Challenges insurance industry has been solving

The promise of Generative AI is high, but it is moving quickly and needs considered adoption into business processes



**Fast-moving environment**



**Management buy-in**



**Insurance specificities**



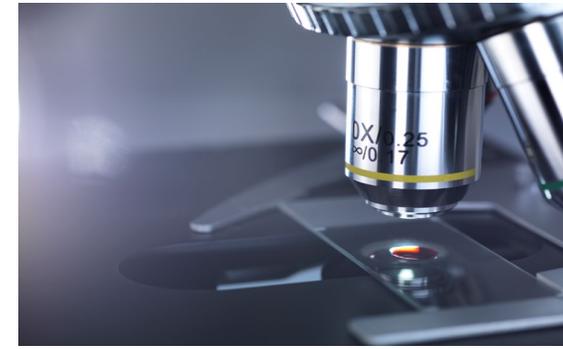
**Benefits > Costs?**



**Security**



**Guardrails**



**Testing**