

RISKTECH:WEBINAR SERIES



# Demystifying Artificial Intelligence

Transformative Use Cases In Insurance

*- a discussion with Klear.ai -*

Sponsored by:  **klear.ai**

# Thank you



Patrick O'Neill  
President & Founder  
Redhand Advisors  
[poneill@redhandadvisors.com](mailto:poneill@redhandadvisors.com)  
404.666.0418  
[redhandadvisors.com](http://redhandadvisors.com)



Darrel Vaughn  
CMO  
Klear.ai  
[Darrel.Vaughn@klearai.com](mailto:Darrel.Vaughn@klearai.com)  
925.640.7156  
[www.klearai.com](http://www.klearai.com)



# Agenda / Takeaways

- ▶ Panel Introduction
- ▶ Brief History, Adoption & Attitudes
- ▶ Applying AI in Insurance Risk & Claims
- ▶ Practical AI Use Cases - Documents, Gen AI, ML and More
- ▶ Q&A
- ▶ Better understanding of AI's role and benefits in insurance
- ▶ Knowledge to navigate and lead in the AI-transformed future of insurance
- ▶ Real-world examples you can apply at your own organization

# Webinar Panel



Steve Robles  
Robles Risk  
President



Anand Shirur  
Klear.ai  
VP Product



Pete Govek  
Klear.ai  
CRO

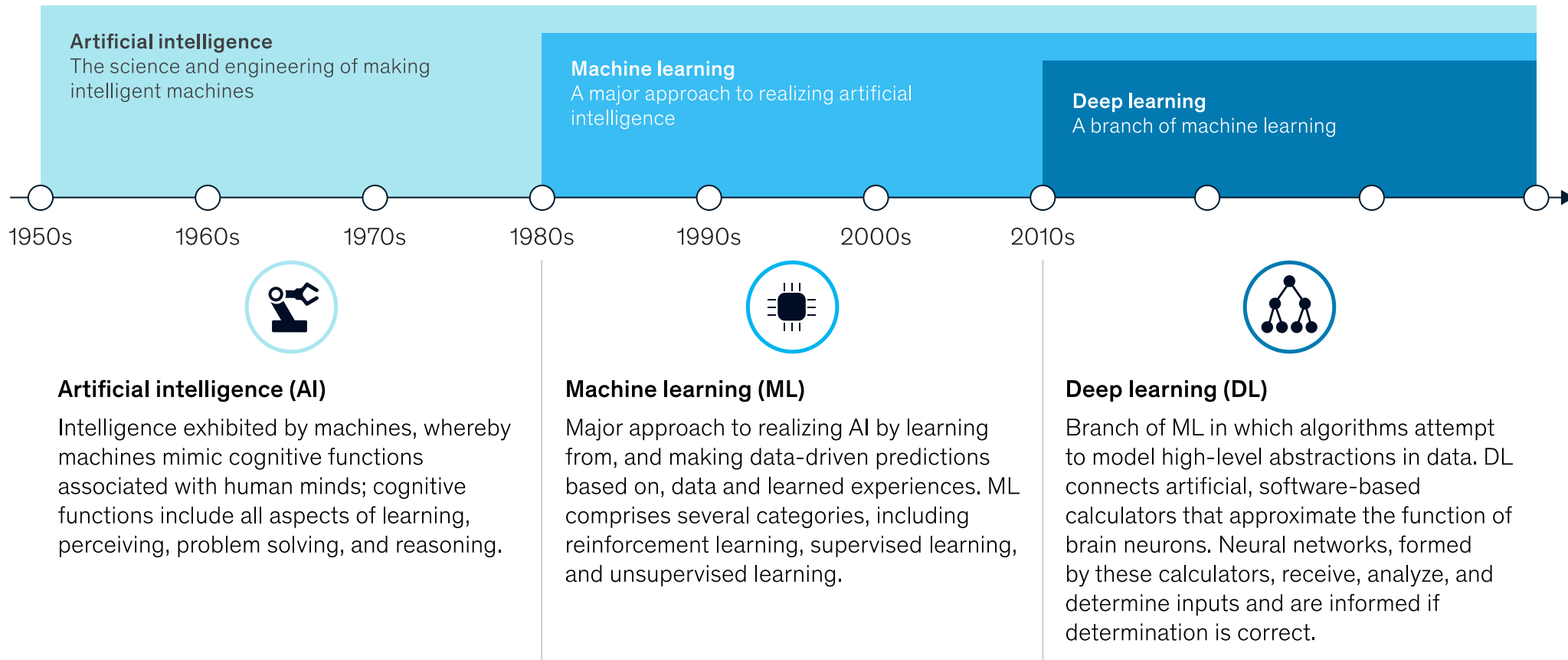


Darrel Vaughn  
Klear.ai  
CMO

# AI: A Brief History, Adoption & Attitudes



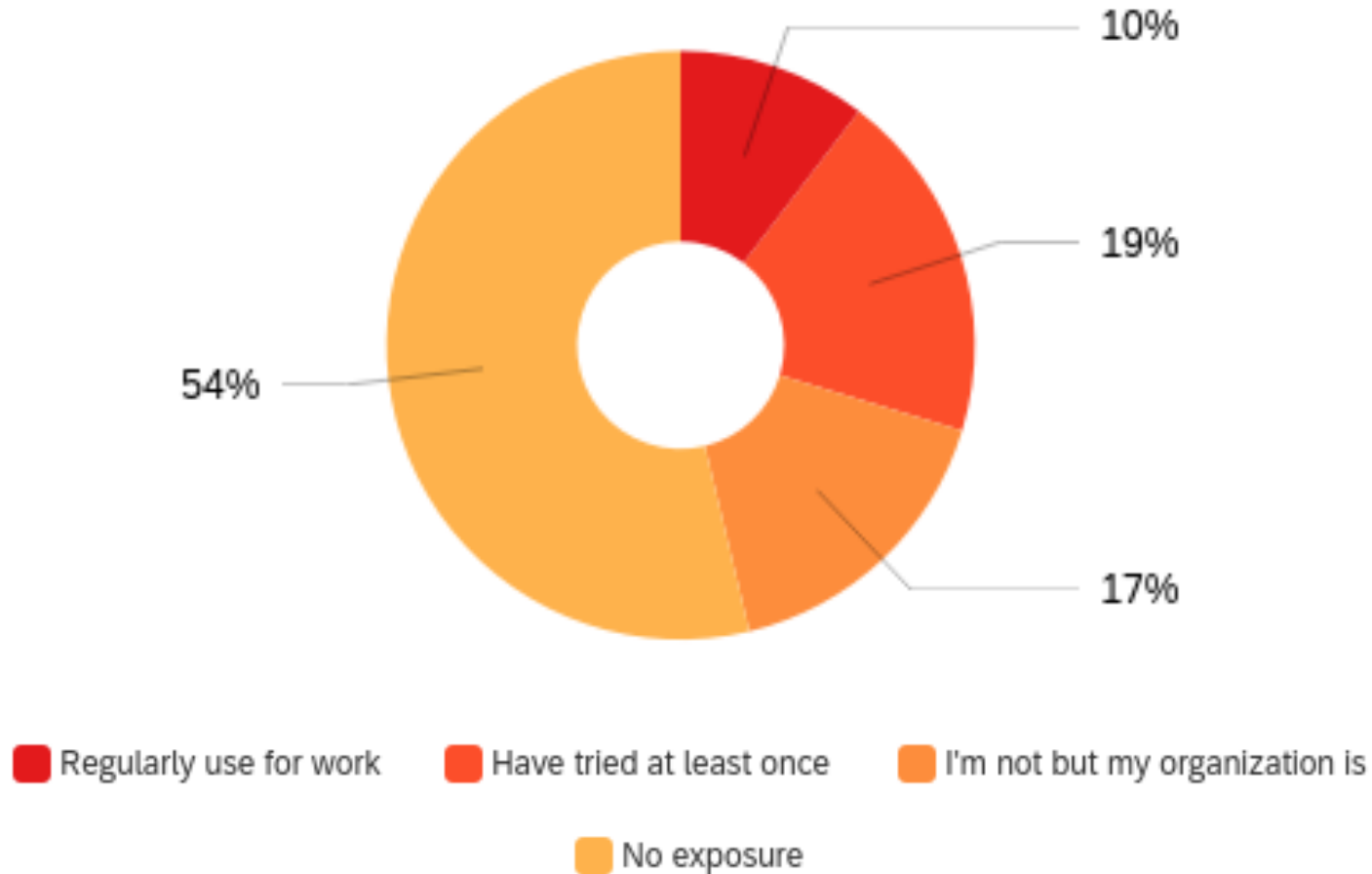
# Artificial Intelligence Landscape



Source: Nvidia; Rockwell Anyoha, "The history of artificial intelligence," *Science in the News*, August 28, 2017, [sitn.hms.harvard.edu](http://sitn.hms.harvard.edu)

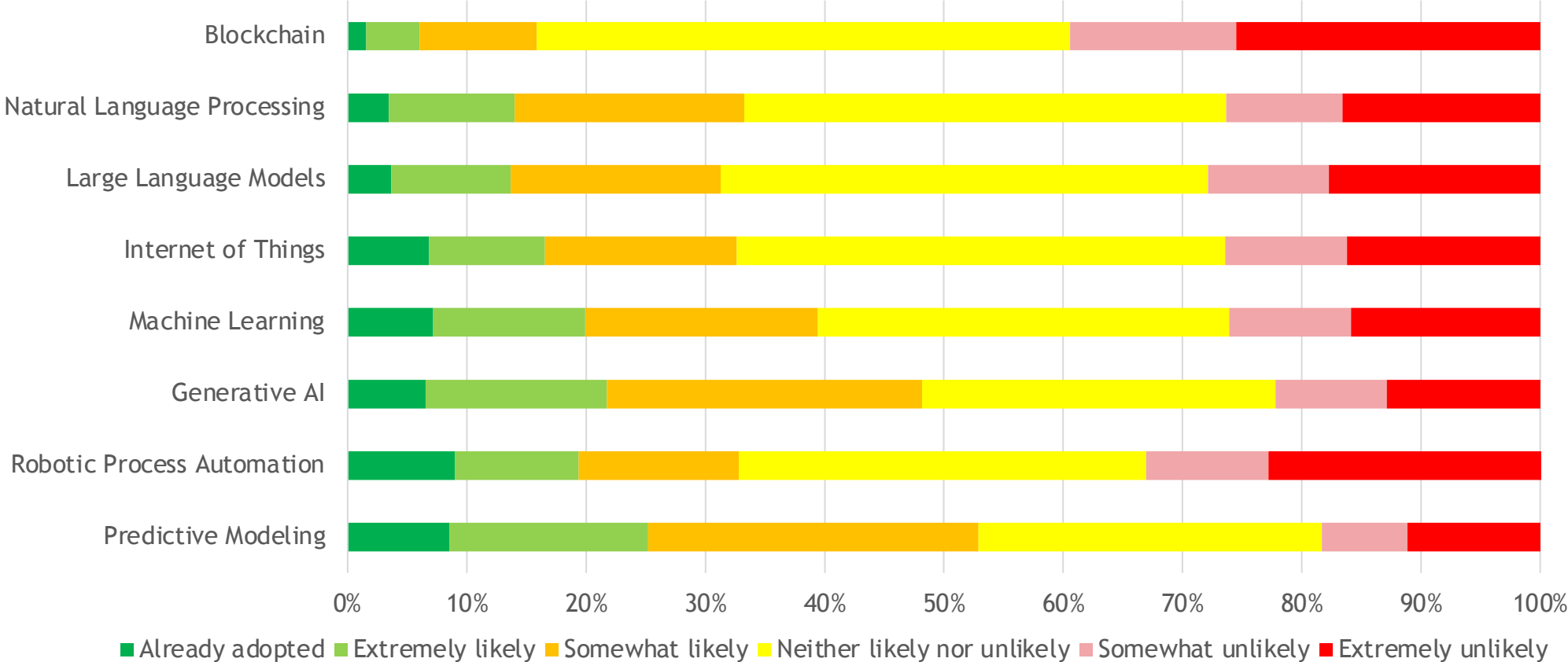
# Are you using Generative AI tools (e.g. ChatGPT) at work?

Source: 2024 RMIS Report User Survey



# How likely is your organization to adopt the following types of artificial intelligence and advanced technologies within the next three years?

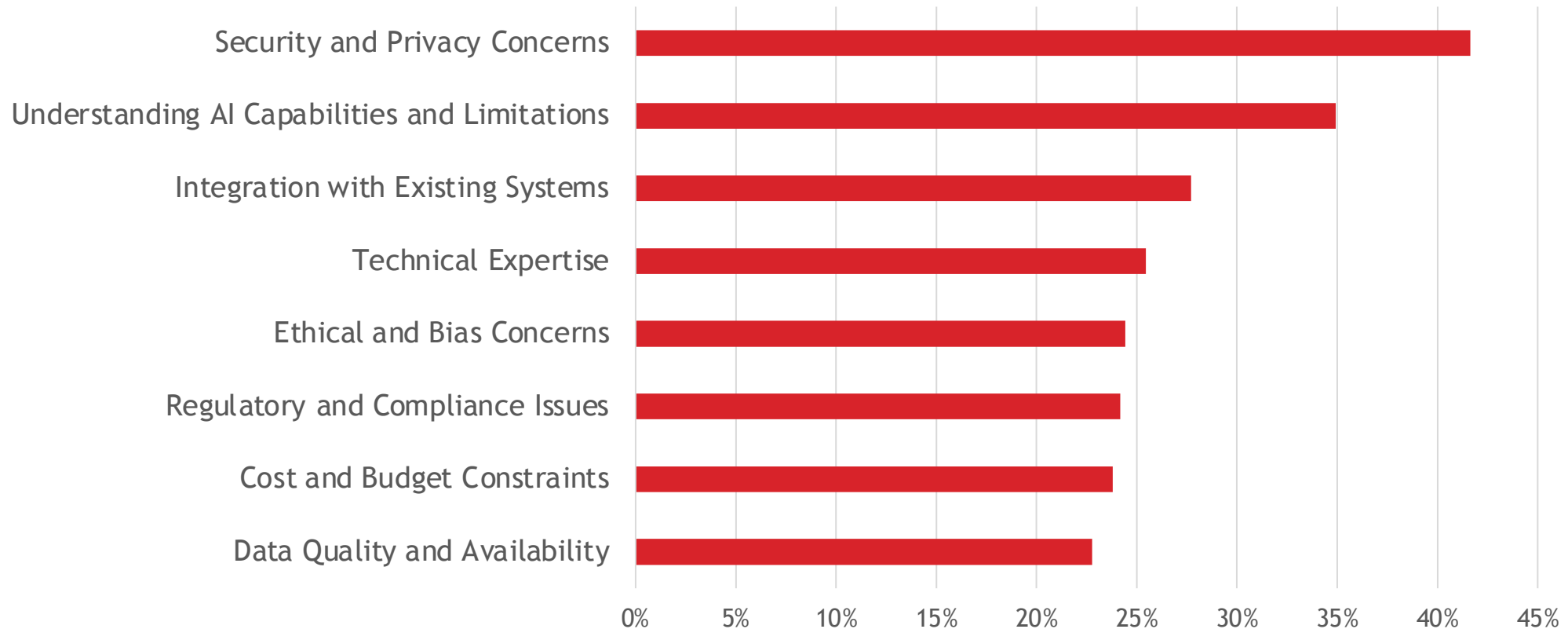
Source: 2024 RMIS Report User Survey





# What challenges or barriers have you faced in adopting AI within your organization?

Source: 2024 RMIS Report User Survey



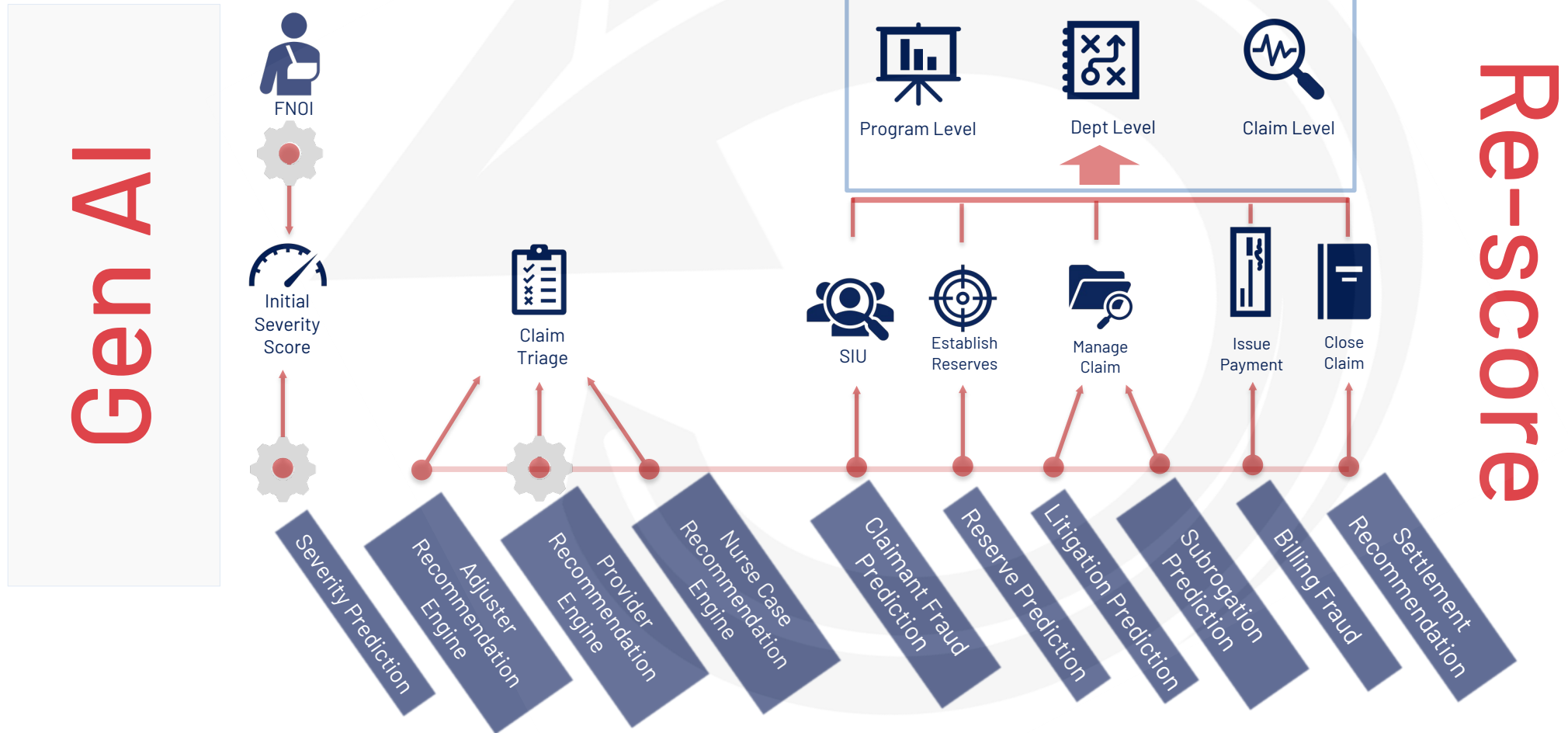
# Applying AI & Intelligent Solutions in Insurance Risk and Claims



# Industry Challenges

- ▶ Qualified Worker Shortages
  - 10,000 retiring/day - 25% from Insurance and Banking Industries
- ▶ Highly competitive in a global economy - often multiple goals pulling in different directions
  - Customers demand highest level of service
  - Owners expect healthy bottom lines
  - Family expects work /life balance
  - Compliance with all regulations
- ▶ Small Planet - issues somewhere can trigger local impact
  - Inflation
  - Nature
  - War
  - Pandemic
- ▶ The Right Technology? - applied correctly is the solution, not an impediment

# A "Smart" Claims Journey

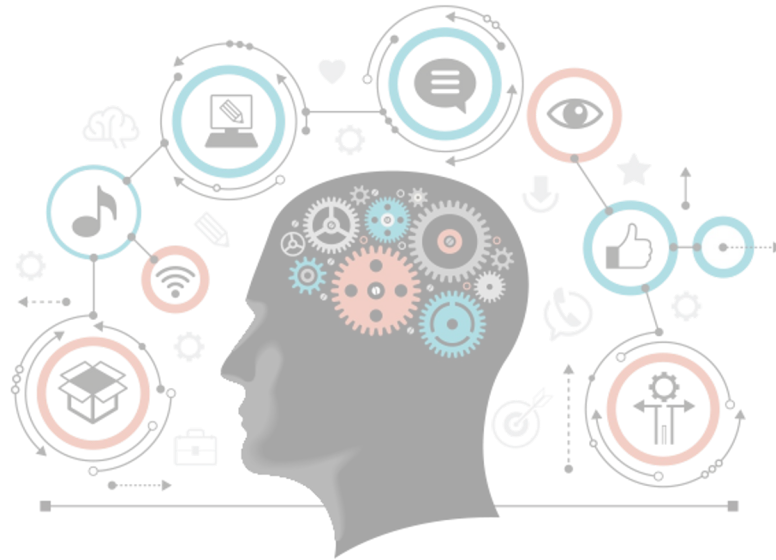


# ROI - A Mid-Sized TPA

Predictive Models	Use Cases			Cost Saving
Severity Prediction (Triaging)	Nurse Case Recommendation 0.10%	Provider Recommendation 1.50%	Adjuster Recommendation 1.00%	2.60%
Fraud Detection & Prevention	Claimant Fraud 1.00%	Provider Fraud 1.00%	Vendor Fraud 0.50%	2.50%
Litigation Avoidance	Litigation Prediction 0.50%			0.50%
Subrogation Recovery	Subrogation Prediction 2.00%			2.00%
Reserve Recommendation	Reserve Prediction 1.00%			1.00%
Total Cost Saving in %				8.60%
Annual Cost of WC Program ( In Million)				\$125
Annual Cost saving in Mn				\$10.75

# Practical AI - Use Cases

## Documents, Gen AI, ML and More





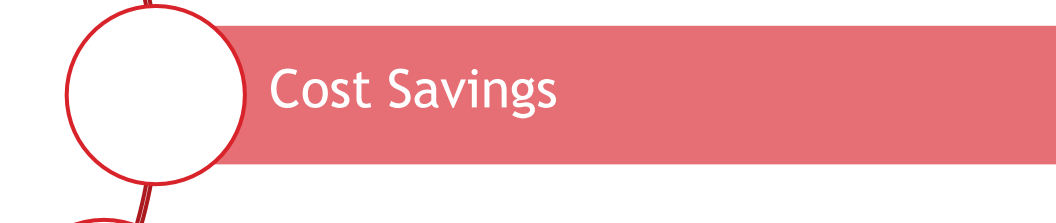
# Automated Data Extraction

Context: A large P&C insurer faced challenges managing high-volume, complex claim forms.

- ✓ Enhancing Accuracy and Efficiency in Claims Processing & Risk Management



- ✓ Expedited processing times, with data extraction times cut by [up-to- 50%].



- ✓ Natural Language Processing (NLP) & (ML) models trained on thousands of claim forms





# Intelligent Classification and Routing

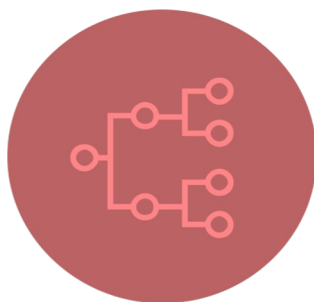
- ✓ Revolutionizing Document Workflow with AI
  - Context: A TPA needs to upgrade its document management process: *currently supported by a 20-person mailroom team*
- ✓ Adaptive AI models that learn and improve classification over time
- ✓ Dramatically reducing document processing time.



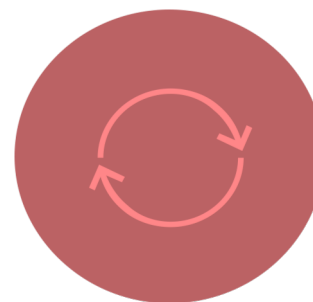
Classify



Route



Adapt



Repeatable





# Summarize Adjuster Notes with Gen AI

- ✓ Optimizing Decision-Making with AI-Summarized Reports
  - Context: Adjusters' narratives were extensive, affecting the pace of decision-making.
- ✓ Enabled quick and informed decisions, boosting productivity [up-to- 30%].
- ✓ Continuously learning system that adapts to the unique language of adjusters' notes.



# Analysis of Treatment Docs with Gen AI

- ✓ AI-Powered Synthesis of Medical Documents
  - Context: Case managers overwhelmed by the volume of detailed medical records.
- ✓ Decreased time-to-decision for medical treatment approvals.
- ✓ Dynamic summaries improved with ongoing input from case managers.





# Leveraging ML for Fraud

- ✓ Proactive Fraud Detection & Mitigation with Machine Learning
  - Context: Rising suspicions and incidents of sophisticated provider fraud.
- ✓ Enabled insurers to take preemptive actions, reducing fraudulent claims by [up-to- 25%].
- ✓ Adaptive algorithms evolve with new fraud detection data



# Dynamic Risk Scoring & Machine Learning

- ✓ Advanced Risk Assessment via ML Scoring Models
- ✓ Prioritization of resource allocation to high-risk cases
- ✓ Adaptive comprehensive risk profiles.



•Context: Static models fail to capture evolving risk landscapes.

# AI Value in Claims Management



## Decision Support

Improved decision making through predictive insights



## Automation

Improved efficiency through automated processes



## Cost

Reduced Cost of Claims



## Adjusters Focus

Frees up examiner's bandwidth for other valuable tasks



## Customer Service

Improved customer service



## Collaboration

Improved collaboration between teams – both internal & external



## Compliance

Improved compliance adherence



# Provider Recommendation Engine

- Leverages AI to **identify the physicians** who are most likely to provide the **best outcomes** when treating workers' compensation patients
- AI Model rates the providers on treatment effectiveness and cost for a given set of ICDs
- Recommendations span across **multiple provider types** - Physicians, Facilities, Physician Groups and Services.
- Clients can configure their own definition of best outcomes based on weightages to following factors:
  - ✓ Early return to work
  - ✓ Average cost of care
  - ✓ Geographical distance
  - ✓ Provider feedback ratings



# Nurse Case Recommendation Engine

- ▶ Leverages AI to identify injuries early that can benefit from an active nurse case management
  
- ▶ Delays in nurse case management intervention can lengthen return to work as much as 50 percent and can cost payers 30 percent more
  - ✓ Early Intervention
  - ✓ Aggressive Case Management
  - ✓ Reporting and Analysis
  - ✓ Focused Return-to-Work Initiatives
  
- ▶ NCMs can help payers by saving cost through
  - Identifying non-related conditions or treatments.
  - Avoiding unnecessary treatments, diagnostic procedures, vocational training, etc.
  - Negotiating rate reductions on behalf of payers.
  - Lowering indemnity payments by obtaining work releases with clearly defined work restrictions or full duty releases.



# Adjuster Recommendation Engine

- Engine recommends the most appropriate primary adjuster to handle a new claim through a combination of AI inputs and business rules.
- Model may recommend secondary (specialized) adjuster for high-risk claims, with threshold probability of fraud, litigation or subrogation
- Model uses the key variables
  - ✓ Adjuster mapping with clients (For TPAs)
  - ✓ Specialty of adjuster - Medical, Indemnity, Fraud, Litigation etc.
  - ✓ Current adjuster workload as against defined thresholds
  - ✓ Adjuster performance over period
  - ✓ Predicted severity of claim - Primary
  - ✓ Predicted Litigation, Subrogation, Fraud, Settlement
  - ✓ Assignment Logic - Round Robin
- Client may define the triggers and thresholds within business rules to control the scope of AI recommendations and extent of automation.





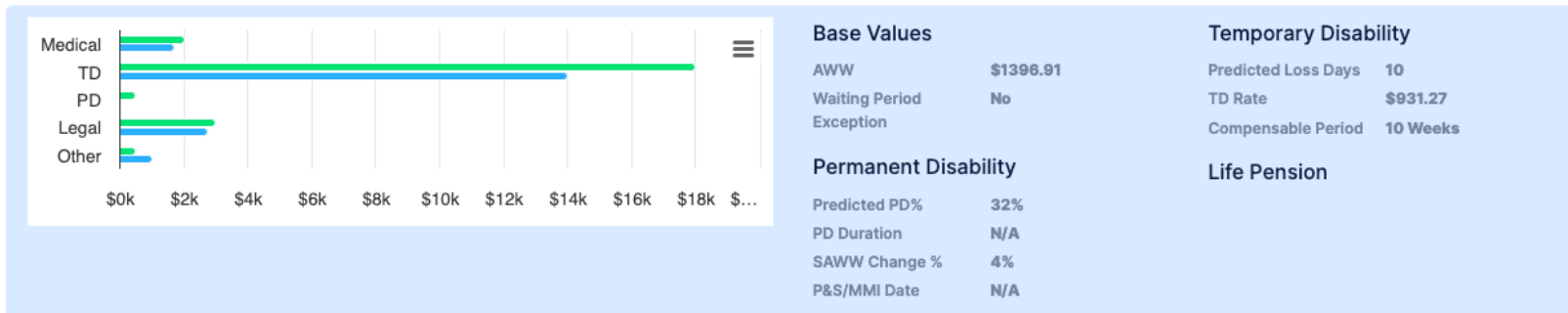
# Reserve Recommendation Engine

- AI Engine recommends the reserve components individually
  - ✓ Medical Cost
  - ✓ Temporary Disability Benefit
  - ✓ Permanent Disability Benefit
  - ✓ Life Pension Benefit
  - ✓ Legal Expenses
  - ✓ Other Expenses
- Complex model with 9 sub-models running at the core.

## Predicted Reserves

Summary

History





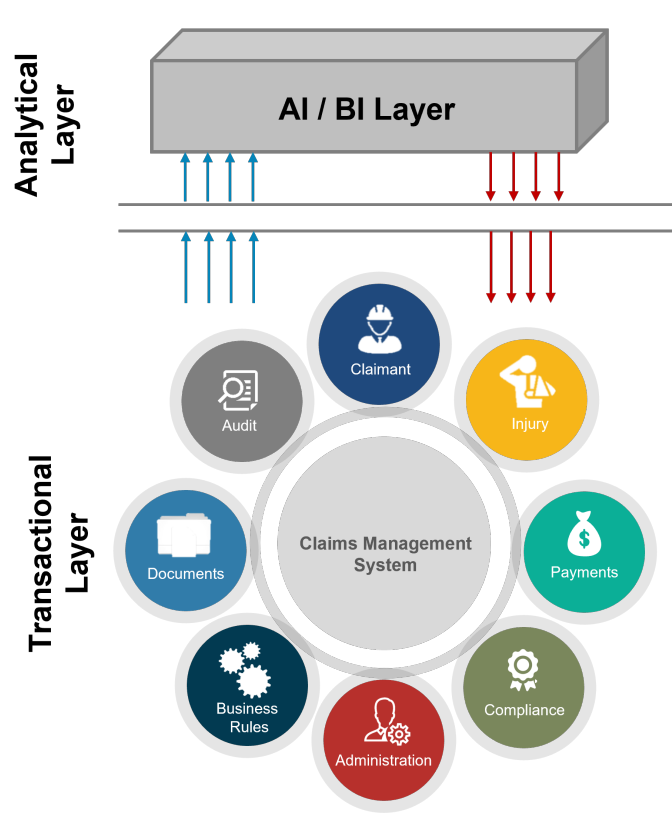
# Audit Recommendation Engine

- Combination of AI Insights and Business Rules for picking claims for audit
  - ✓ If difference between 'Current incurred' and Predicted incurred is beyond 50%
  - ✓ If claim exceeds cost and time beyond 'Official Treatment Guidelines' and still open
  - ✓ When Litigation Prediction confidence level goes >70%
  - ✓ When Subrogation Prediction confidence level goes >60%
  - ✓ When Fraud Prediction confidence level goes > 60%
  - ✓ Gaps identified in compliance adherence
- Intelligent assignment of claims to designated auditors based on availability & specialty
- Auto population of scorecards with 'system recommendation' of audit results
- Compilation of audit results through intuitive dashboards
- Performance Management - Heatmaps of adjustors and auditors

# Conventional

vs.

# Native AI



VS



# What Next: How to get Started

## Deploying AI & ML Solutions

