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Optimize Your Enterprise with Pega Process AI

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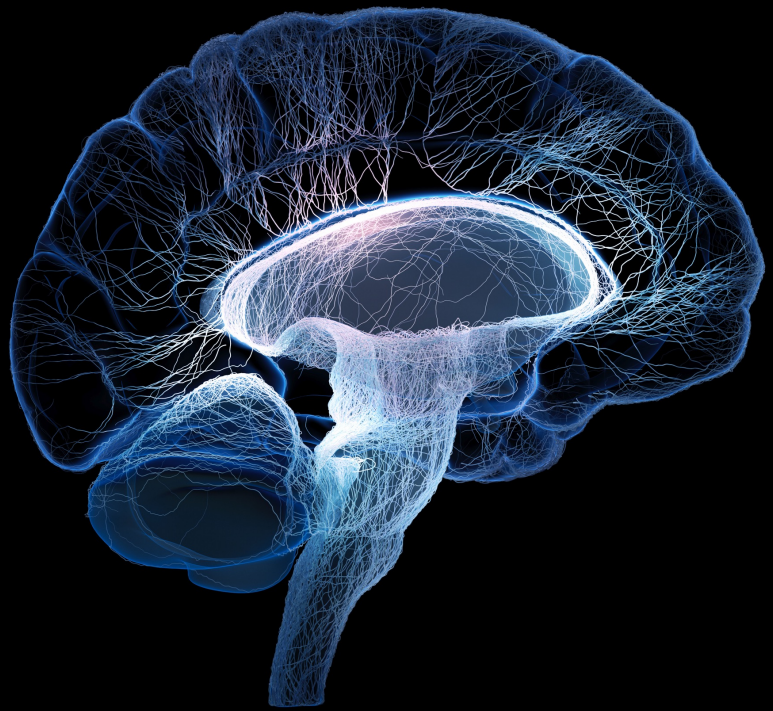


Pega GenAI

Pega Blueprint™

Pega Autopilot™

Pega GenAI Prembridge™

Pega GenAI Connect™

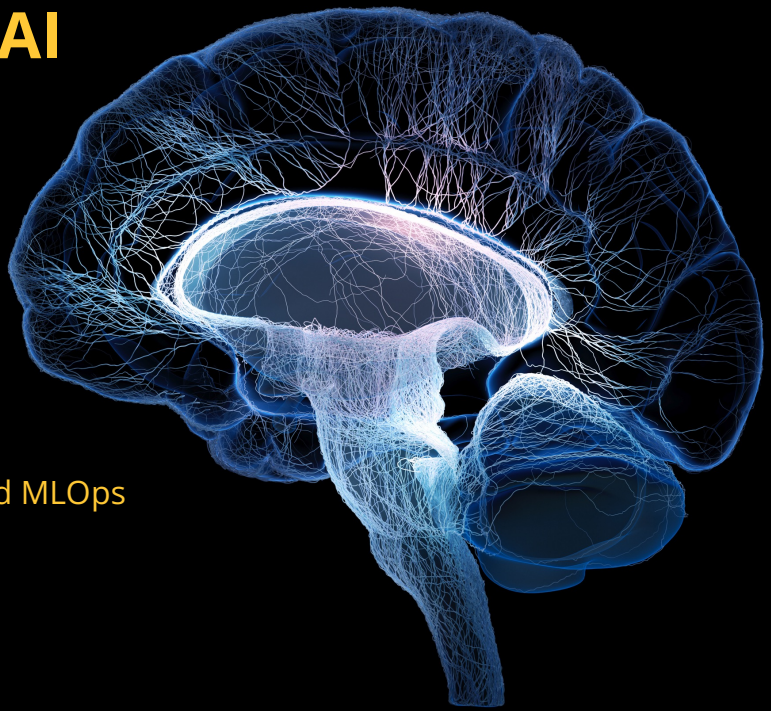
Pega GenAI Coach™

Pega GenAI Automate™

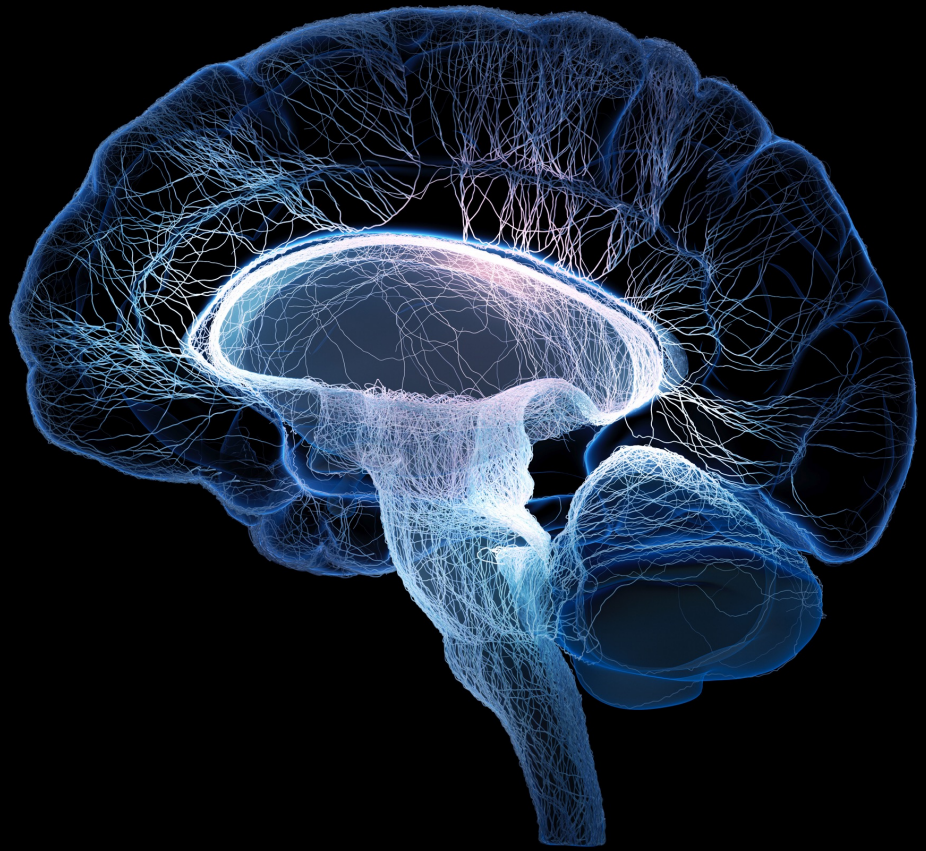
Pega GenAI Analyze™

Pega GenAI Knowledge Buddy™

Pega Process AI



- Pega Prediction Studio
  - Predictive analytics
  - Adaptive analytics
  - Text analytics
  - Feature management
  - Third-party model integrations and MLOps
- Data sets and Data Flows
- Decision strategies
- Event strategies



IDENTIFY OPPORTUNITIES

Process mining, Task mining, along with business and workforce intelligence analysis

Human CAPACITY

ANALYZE

AUTOMATE

OPTIMIZE

Human CAPACITY

Human CAPACITY

STATIC AUTOMATION

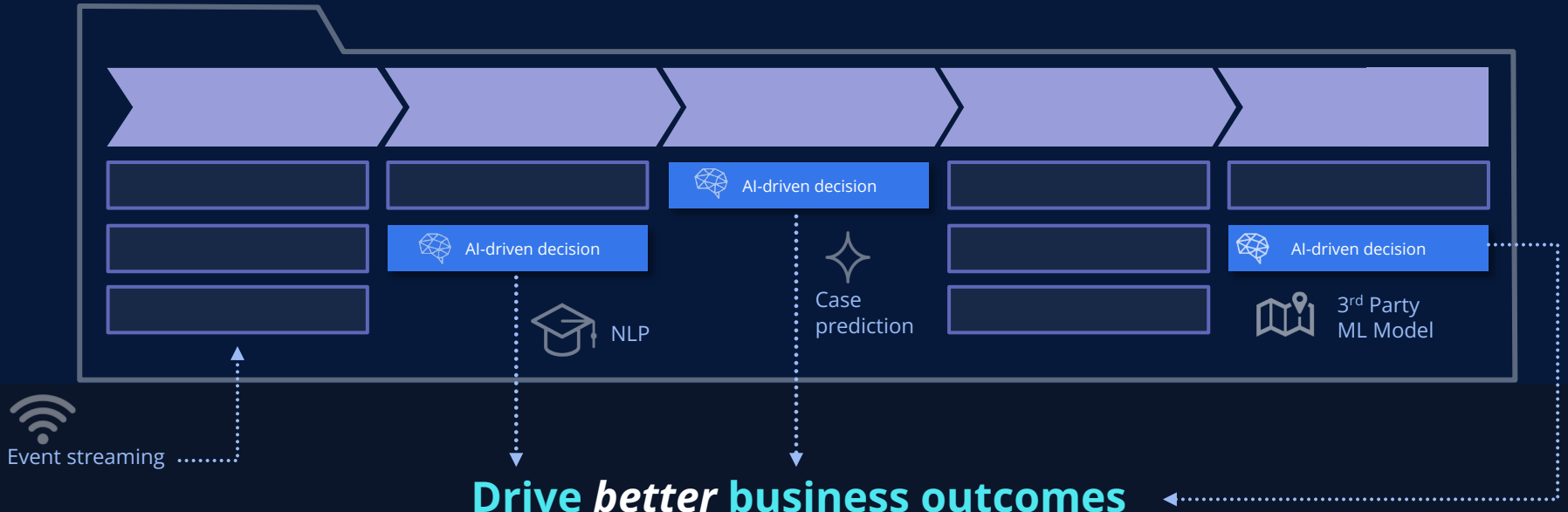
Chat and email bots, RPA, business rules, and low-code workflows

SELF-OPTIMIZING

Process AI easily optimizes workflows and decisions

Make Your Business More Effective

With AI-driven decision on every touchpoint



Drive *better* business outcomes

- Optimize KPI's and Business Outcomes
- Proactive service leveraging AI
- Guide employees to better decisions
- Improve Business Processes with applied Machine Learning

No-code AI And Decisioning For Workflows

KEY CAPABILITIES

Decision wrapper
Easily Test and Hot-Swap Decisioning Approaches

Advanced Decisioning
Effortlessly combines your deterministic and non-deterministic rules into comprehensive decisions

Seamless AI integration
Enables native or 3rd party AI models to be used at any point in a workflow with just a few clicks

Event Stream Triage
Monitors streaming data and automatically detects significant events so you can act in real time

Responsible AI
Provides built-in governance and monitoring capabilities, including bias checks and transparency management

Decisioning Ops
Allows organizations to inject AI into their processes in a well-governed manner, with zero downtime

WHERE TO APPLY

Cases

Event Streams

3rd Party Applications

AT SCALE

Injecting AI and Decisioning in your workflows

Make smarter real-time decisions in your processes

Should it be Auto Resolved?

Decide: Resolve Likelihood
Act: Direct flow to Auto Resolve
Benefit: Increased auto resolution

Who is best to work on this?

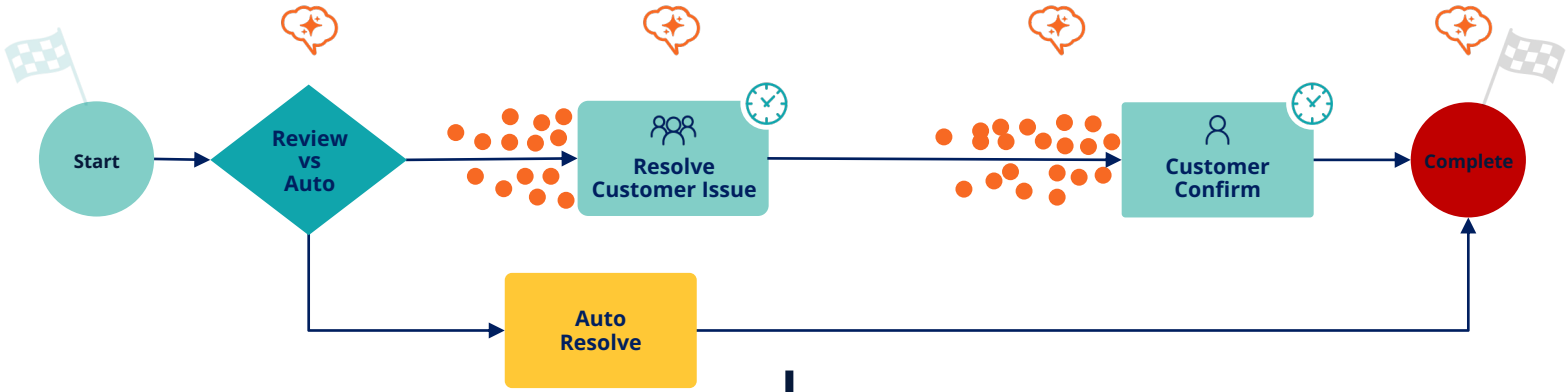
Decide: Queue likelihood of resolution
Act: Route to optimal queue
Benefit: Eliminate Rework

Will it resolve within the SLA?

Decide: SLA Adherence Likelihood
Act: Escalate & Proactive Contact
Benefit: Efficiency/Client Satisfaction

Are they likely to abandon?

Decide: Likelihood to Abandon
Act: Proactive Customer Contact
Benefit: Increased Process Completion



AI finds patterns across hundreds of dimensions

Use Case Questions

- Which case should be auto resolved?
- Which work queue would resolve best?
- Who is likely to abandon the process?
- Will this case finish within expected time?

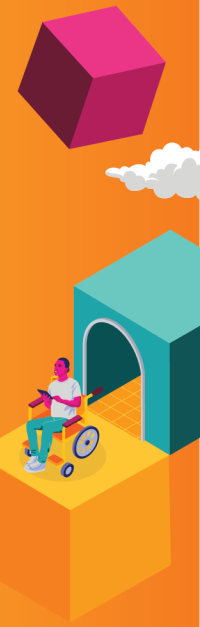
Case and User Decision History

Traditional process improvement

- Identify patterns across 2 to 3 dimensions using charts
- Pattern identification limited to human analytics
- Operationalize patterns using business rules
- Dynamically determine flow, routing, SLAs, outreaches

Real World Use

Industry	Use Case	Results
US Government Agency	Fraud Report Triage	• Eliminated a meaningful amount of manual work • 15% improvement in case classification • 30% of cases auto resolved
Technology Firm (Legal Dept)	Document Triage	• Process ingestion and routing of legal affidavits, info requests, and all inbound legal documents using own OCR and NLP integrated with Process AI • Increased team case processing capacity almost 3x from July-Nov 2023
US Healthcare Payor	Work Prioritization	• 1M predictions/day for pended claims across 6 states, with no performance issues and with model AUC > 80% • Process AI v. current production showed substantial reduction in late payment penalties with potential reduction in overtime spend



What results can you see putting Pega Process AI in Action?

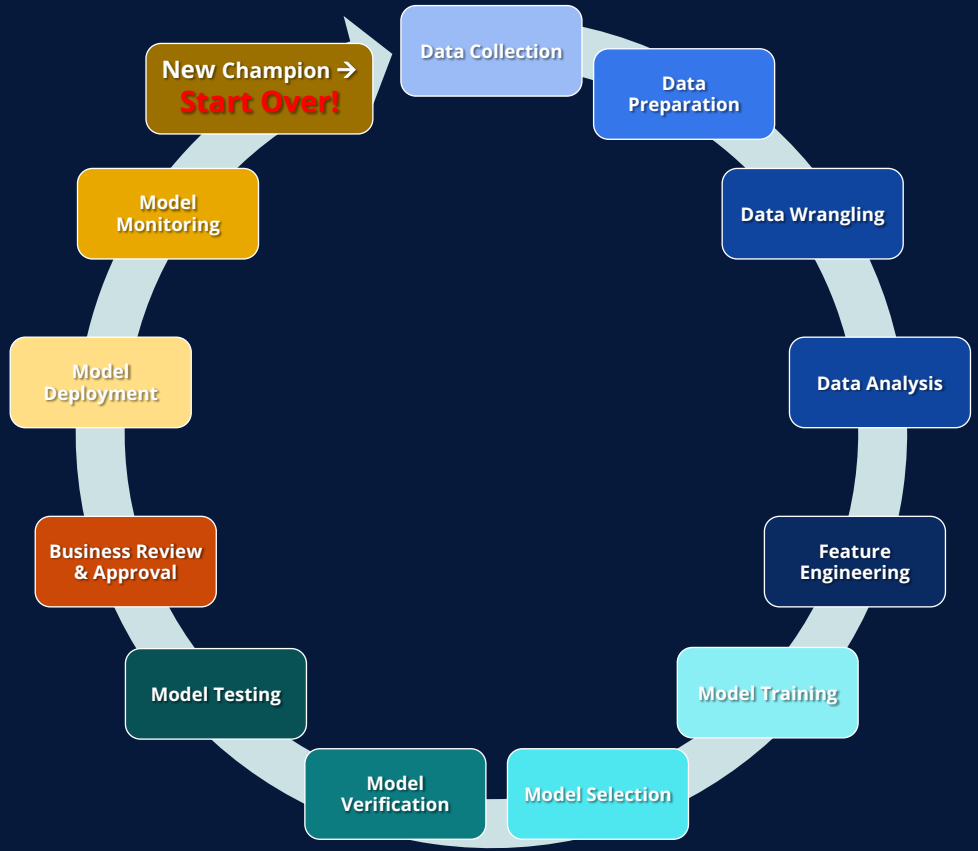
Don’t Be Afraid to Dream Big

…the business goal must be paramount… Leaders must avoid the trap of pursuing tech for tech’s sake. **The greatest rewards also will go to those who are not afraid to think big…** (T)he leading companies are the ones that are focusing on reimagining entire workflows with gen AI and analytical AI rather than simply seeking to embed these tools into their current ways of working.”

Alex Singla, Senior partner and global coleader of QuantumBlack, AI by McKinsey

The state of AI in early 2024… May 2024

Traditional Model Management

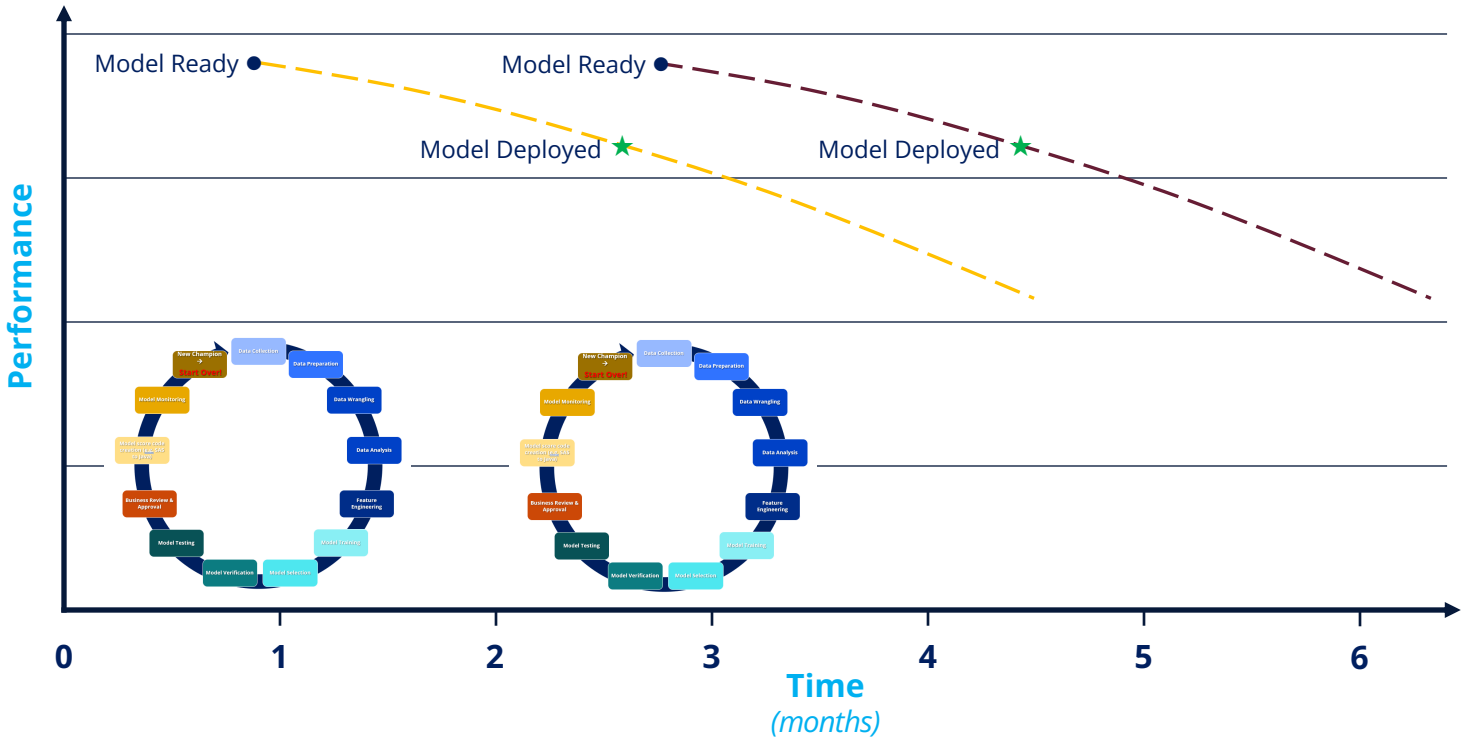


Traditional Model Management

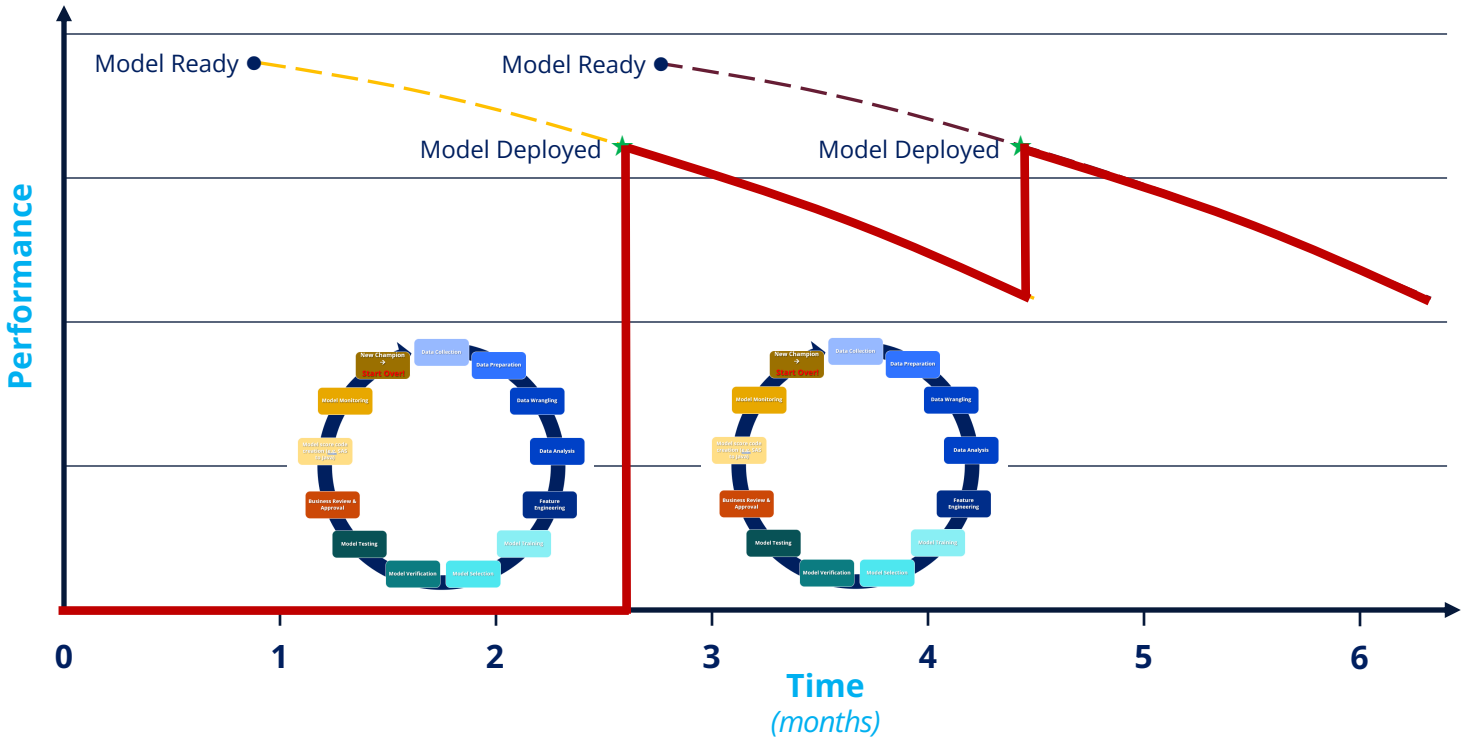
Typical Time Required	Initial Deployment	Ongoing
Data	Days → Weeks	Hours → Days
Development	Days	Hours → Days
Planning|Review	Days→ Months	Days→ Months
Deployment|Monitoring	Days → Weeks	Days
Total	**>2 months**	**>1 month**

New model performance often degrades below a new champion before it can be deployed

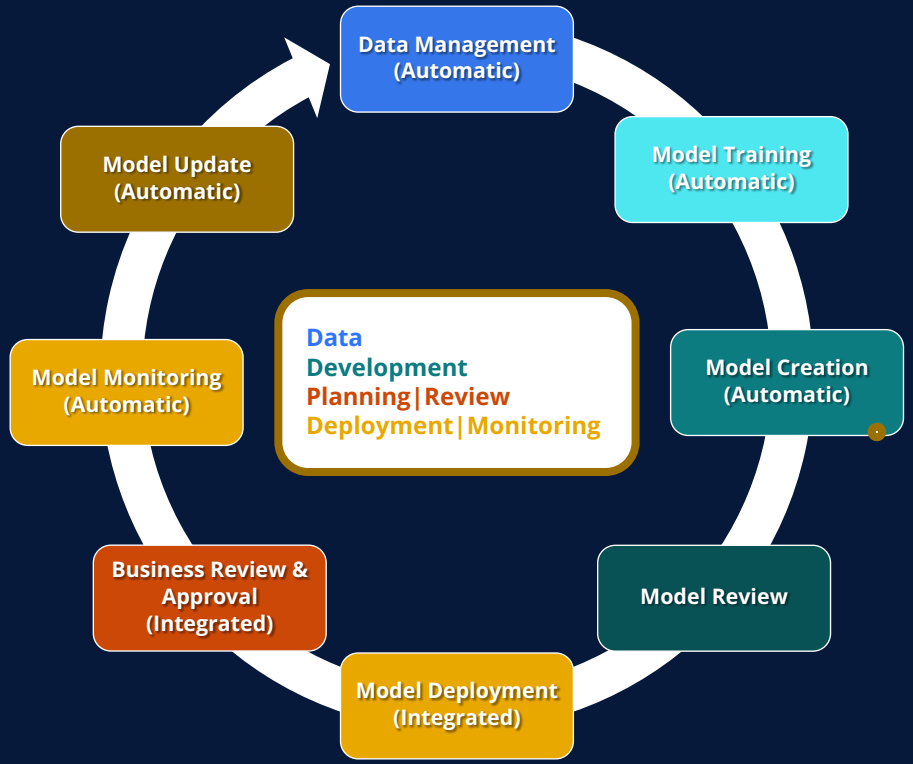
Traditional Models Over Time



Traditional Models Over Time



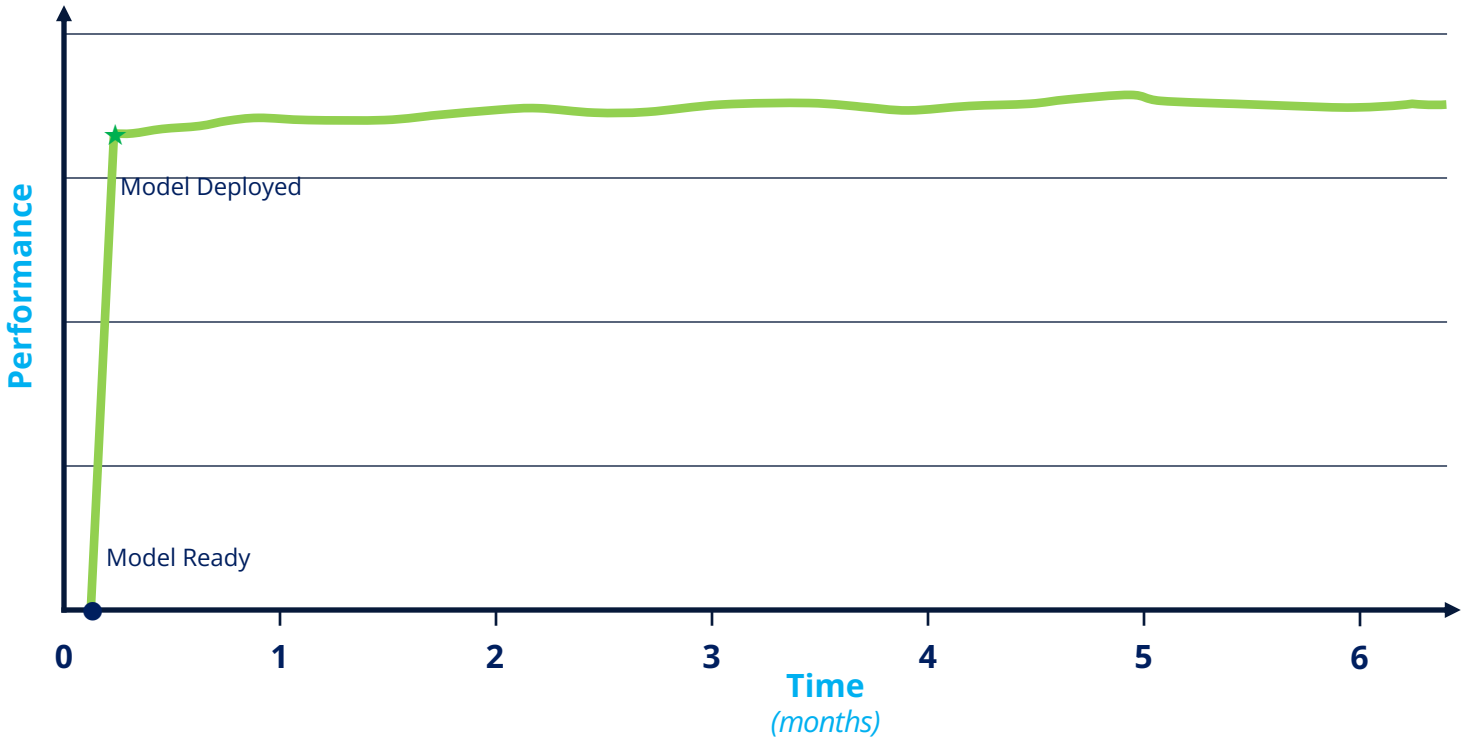
Adaptive Model Management



Typical Time Required	Initial Deployment	Ongoing
Data	Minutes → Hours	Automatic (0)
Development	Minutes → Hours	Automatic (0)
Planning|Review	Hours → Weeks	Hours → Days
Deployment|Monitoring	Minutes → Hours	Automatic (0)
Total	<2 Weeks (mostly review time)	<2 Days (review time)

New models are automatically updated every 2 hours after the initial training period.

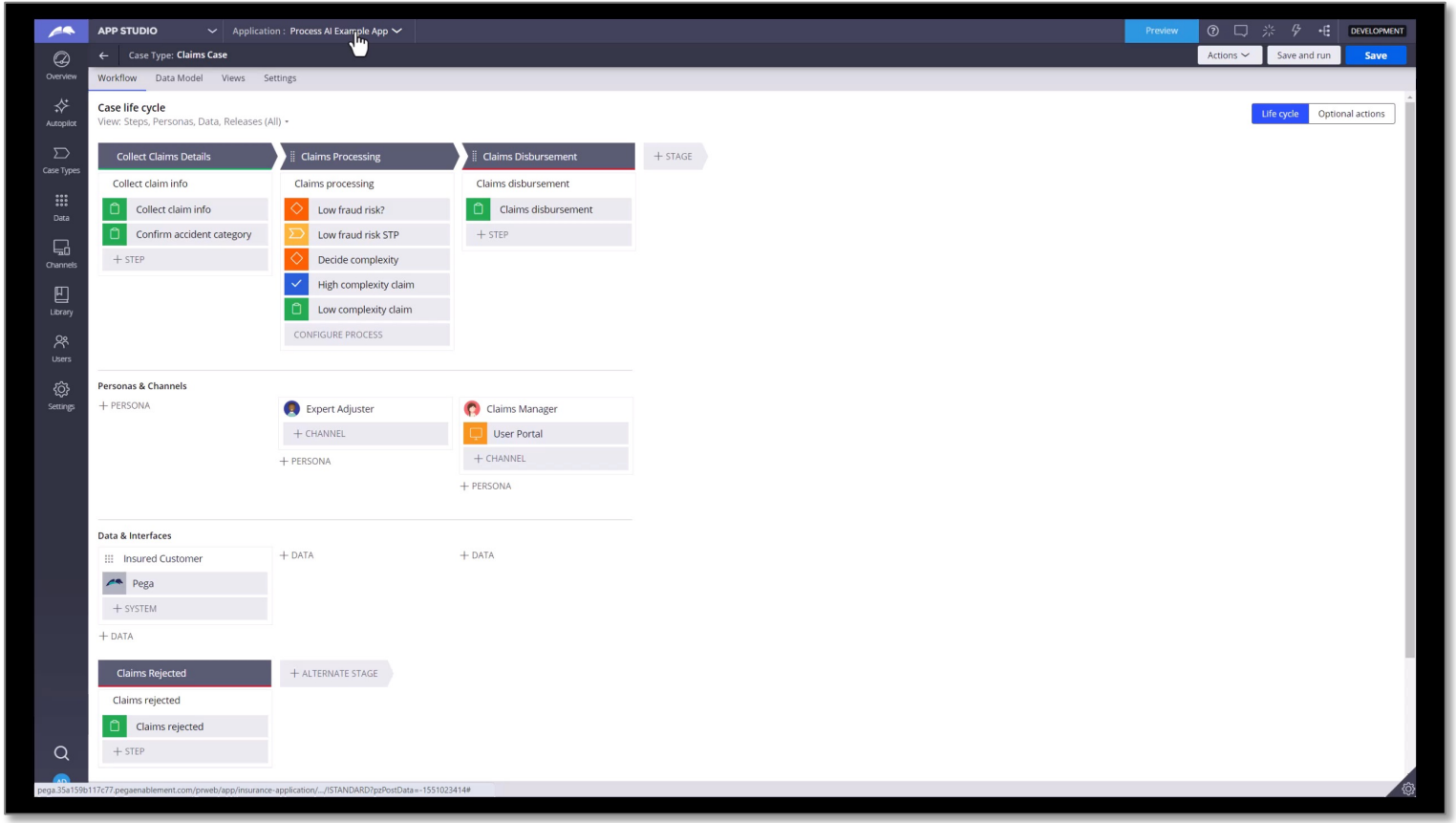
Adaptive Models Over Time



Adaptive Vs Traditional Models Over Time

Traditional Models may perform better initially, but Adaptive typically delivers faster time to value and enhances performance via continuous model updates

Time to Value: New NLP model to Production



Alphabet Soup: ABC, the 2Es, and ROI

Activity-Based Costing (ABC) – is a costing method that assigns overhead and indirect costs—such as salaries—to products and services

The 2Es: Efficiency and Effectiveness

Efficiency

- AUR (Agent Utilization Rate)
- AHT (Average Handle Time)
- CPC (Cost Per Call)
- FCR (First Call Resolution)
- MTTR (Mean Time To Resolution)

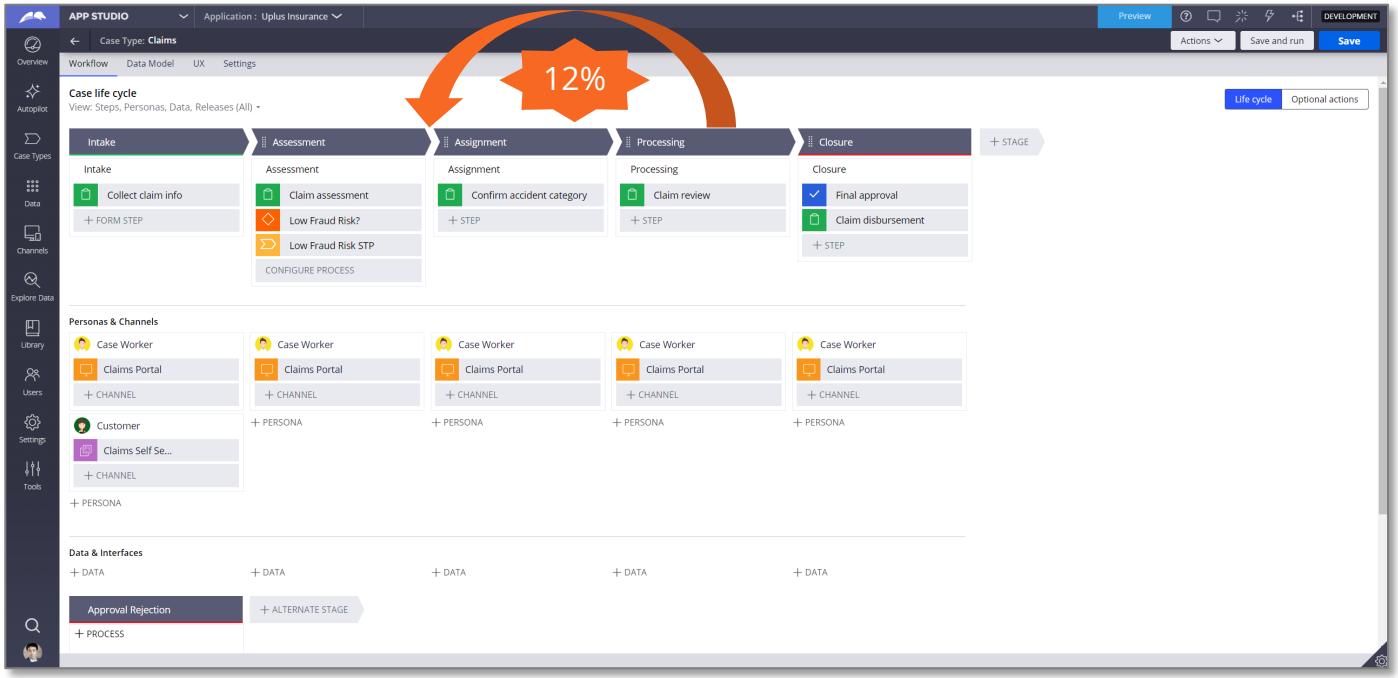
AI

Effectiveness

- Churn reduction
- CSAT (Customer Satisfaction)
- Fraud reduction
- NPS (Net Promoter Score)
- Penalty Avoidance

Building An AI Business Case: Claims Example

Let's start with Efficiency: analysis shows that 12% of cases assigned require rework due to claims initially being routed to the wrong team.



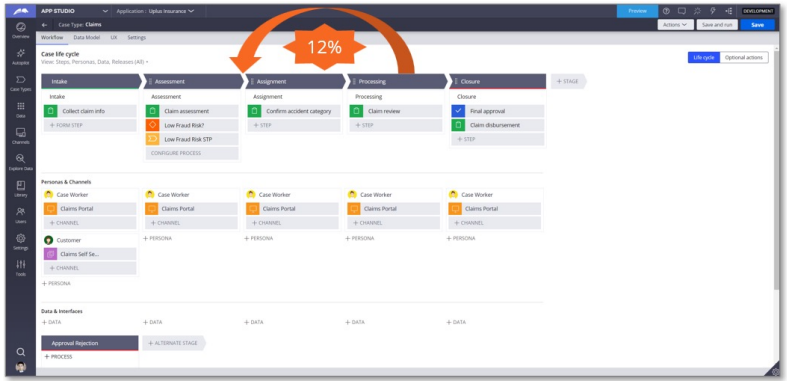
Disclaimer: while our example uses reasonable-to-conservative assumptions, your mileage *will* vary!

Building An AI Business Case: Claims Example

Let's start with **Efficiency:**

Assumptions

- The assignment step takes 5 minutes
- When reworked, the assignment step takes 8 minutes
- Indirect cost (salary + overhead) is $60K/yr, ~$30/hr, or $0.50/min



With no rework, the cost for the assignment step per 1,000 claims would be

1,000 * 5 minutes * $0.50/minute = **$2,500**

With rework, the cost for the assignment step per 1,000 claims is

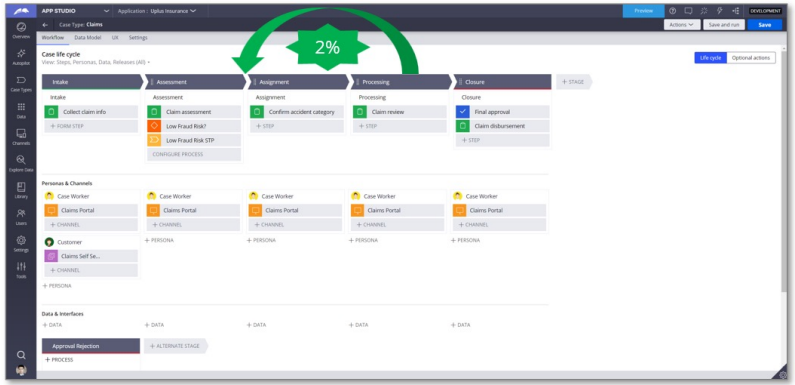
$2,500 + (120 * 8 minutes * $0.50/minute) = **$2,980**

Disclaimer: while our example uses reasonable-to-conservative assumptions, your mileage *will* vary!

Building An AI Business Case: Claims Example

Now let's apply Process AI

- Natural Language Processing (NLP) helps in routing the claim
- With NLP
  - The assignment step takes 2 minutes instead of 5
  - Reworked assignment steps takes 5 minutes instead of 8
- Assuming NLP model is 96% accurate and that with the agent's review 98% of claims are routed correctly, 20 claims instead of 120 out of every 1000 are reworked



Before Process AI, the assignment step cost $2980 for every 1000 claims

With Process AI the cost for every 1000 claims is:

(1000 * 2 minutes * $0.50/minute) + (20 * 5 minutes * $0.50/minute) = $1000 + $50 = **$1050**

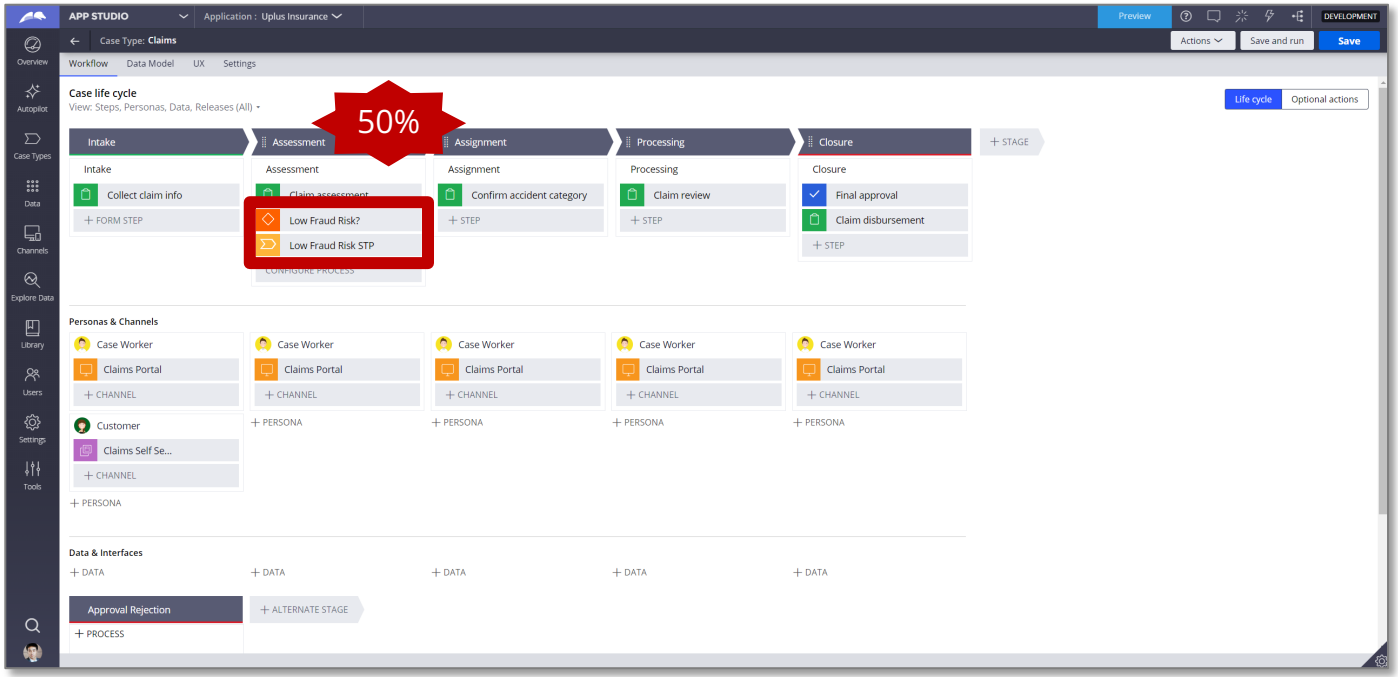
In this hypothetical example, AI-assisted routing reduced the cost of the Assignment step by 65%, or almost $2000 every 1000 cases

For the actual rework only. Additional gains related to reduced processing time per claim--likely hours--is not accounted for

Disclaimer: while our example uses reasonable-to-conservative assumptions, your mileage *will* vary!

Building An AI Business Case: Claims Example

Let's move on to Effectiveness: in this industry the fraud rate is 8%, and with current methods 50% of fraud is detected and prevented.



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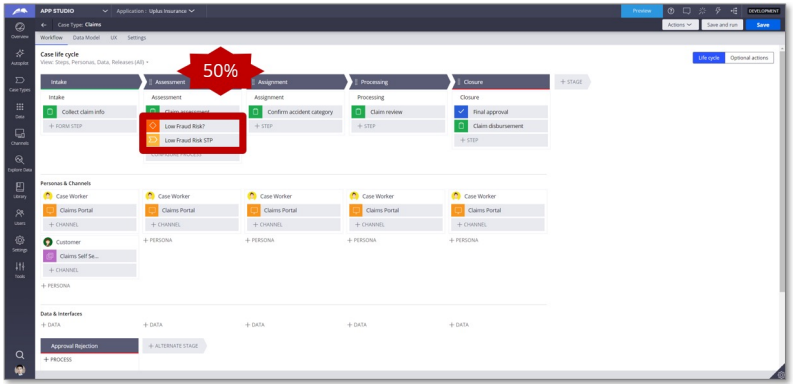
Building An AI Business Case: Claims Example



Let's move on to **Effectiveness:**

Assumptions

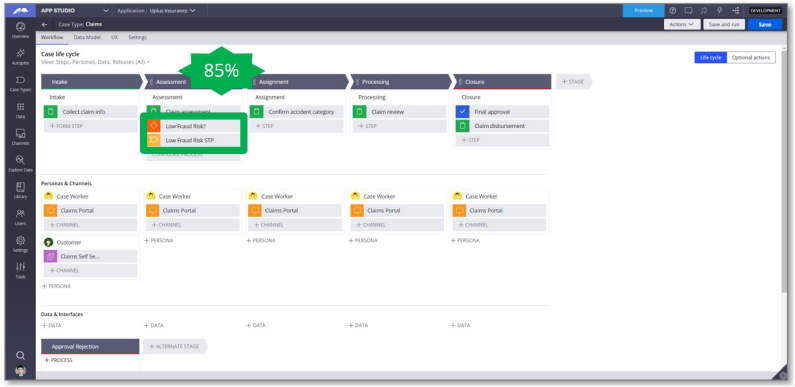
- The average claim amount in this industry is $500
- With current methods 50% of fraud is detected
- While efficiency aspects will be ignored for this example…
  - The cost for the fraud specialist review is one of the higher cost steps in this process and can be reduced with AI assistance
  - This organization bypasses the fraud review step for low amount claims where the average cost of fraud is lower than the cost of review. This analysis ignores the increase in Straight Through Processing that would typically be achieved with

Disclaimer: while our example uses reasonable-to-conservative assumptions, your mileage *will* vary!

Building An AI Business Case: Claims Example

Now let's apply Process AI

- The organization adds a real-time fraud prediction model that predicts fraud with 85% accuracy
- For every 1000 claims, the prior method correctly detected 40 claims (1000 * 8% rate * 50% detection)
- For every 1000 claims, the new method correctly detects 68 claims (1000 * 8% rate * 85% detection)



In this hypothetical example, AI-assisted Fraud detection reduces fraud-related cost by ($500*(68-40)) = $14,000 per 1000 claims

- In real-life:
  - The distribution of fraud by cost may impact the benefit of applying AI
  - Several models would be used, e.g. one to screen for fraud and a 2nd pass model to further evaluate flagged claims resulting in:
    - Increased detection of fraud and resulting reduction of fraud costs
    - Increased processing efficiencies and savings thanks to more cases bypassing fraud review and reducing the cost of manual fraud review

Disclaimer: while our example uses reasonable-to-conservative assumptions, your mileage *will* vary!

Before Process AI

- Manual claims assignment with rework cost ~$3K for every 1000 cases
- 8% of claims are fraudulent, and existing Fraud detection methods identified 50% those claims. Average claim value is $500

After Process AI

- **Improve Efficiency:** AI-assisted routing reduced the processing time and number of claims reworked—cost $1K, **a savings of almost $2K every 1000 claims**
- **Improve Effectiveness:** AI-assisted approach identifies 85% of fraudulent activities, **reducing fraud-related costs $14,000 every 1000 claims.**
- **Additionally Process AI can:**
  - Significantly reduce overall claim handling time *(our synthetic example yielded over 25% reduction or > 4hrs/claim)*
  - Improve SLA adherence (an OOTB SLA prediction template is available), which in turn can reduce penalties and increase
  - Increase efficiency of many manual steps, including fraud investigation
  - Increase the efficiency of addressing many business challenges, including churn and dispute resolution

Things To Take Back From Pegaworld

- Focus on low-hanging fruit: identify an area or areas where improvement is needed
- Don’t let perfection be the enemy of progress
  - The benefits of injecting AI into your processes can be *shockingly* high; make the best estimates you can but don’t get hung up if it’s not as precise as you’d like
  - Don’t get stuck--leverage the expertise of Pega and your Pega partners to assess your use cases
- Be sure to involve the right parties and check on approvals needed
  - Data science/analysts should be involved and provide AI-related support and guidance
- Capture data and information now to support your ‘before’ picture, so you can better quantify the ROI of your investment.
  - For many organizations, Process Mining is a great application for this
- Don’t be afraid of the AI—it’s tried and true. The ‘killer app’ of Process AI is how easy you can *apply* AI, real-time and at scale, to improve your sophisticated business processes


Don’t Be Afraid
to Dream Big!

Additional Information

Where to learn more and reuse what has been successful

Process AI Overview Video
https://www.pega.com/insights/resources/process-ai

Process AI related Academy Missions
https://academy.pega.com/mission/pega-process-ai-essentials/v5
https://academy.pega.com/mission/decision-management-essentials/v2

Pega Process AI Documentation
https://docs.pega.com/category/ppaii241?labelkey=24&labelkey=process-ai

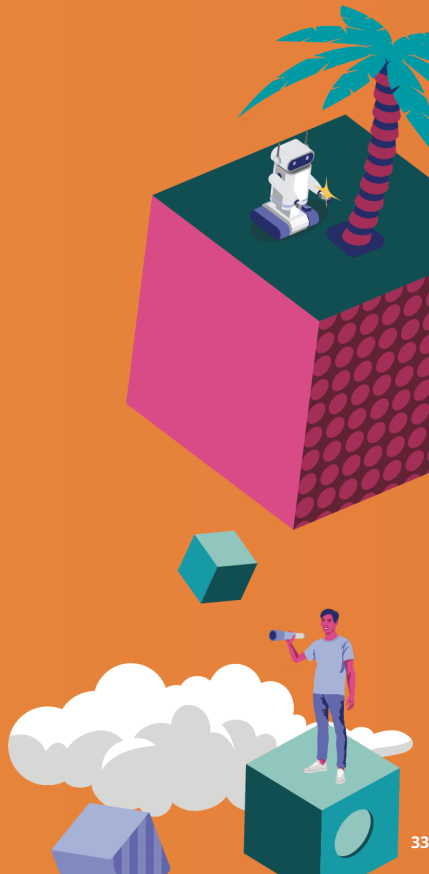
Process AI Sample Application
https://community.pega.com/marketplace/application/process-ai-example-application

More about Pega Process AI

Sparks of AI driven Autonomous Operations
June 10, 2024, 2:15PM - 3:00PM PDT
Premier Ballroom 316

Pega Process AI Demo
Innovation Hub

Watch the Replay
Top 10 Hottest Use Cases for Boosting Your ROI with AI from Pega

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