

# UNDERWRITING, PRICING, CLAIMS AND RETENTION

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The power of AI benefits every aspect of insurance

# AI-ENERGIZED INSURANCE

Change happens. In business, change happens continually, especially in technology. Mortgage lenders, retailers, healthcare providers, government agencies, pharmaceutical researchers and organizations in an expanding number of sectors are leveraging the massive power and infinite potential of AI. Now change comes to one of the oldest, most traditional segments, insurance.

Certainly, Benjamin Franklin and his staff at America's first property and casualty insurance company didn't have the advantage of comprehensive automation. Just as certainly, Ben and his cohorts would've embraced the far-reaching capacities that the savviest insurers now leverage daily. InRule delivers no-code AI power to insurers across the globe. P&C carriers, healthcare payors and other specialty insurance organizations leverage plain-language decision automation, supported by machine learning and process automation, to optimize operations across the entire insurance lifecycle – from rating and underwriting to compliance to claims to customer retention.

Read on for a deeper dive into the benefits InRule offers insurance companies, and the results the savviest insurers currently enjoy.

## I. THE CUSTOMER

### **Real-Life Super Powers: Serving their needs means delivering their coverage solutions while they're piping hot**

Meeting the needs of today's commercial customers requires addressing their evolving needs. It means meeting them faster than competitors. New technologies such as driverless cars and home robotics require new coverage products. Today's challenges to commercial insurance customers – economic headwinds, continuing supply chain issues, global conflicts and expansion into remote regions and markets, all create the need for unique, creative insurance solutions. Greater digital engagement options necessitate interacting with prospects and customers in the most painless, even pleasing, way available.

In the face of today's dynamic challenges and opportunities, the savviest insurance providers are leveraging the power of InRule decision automation to effectively



manage them. Recently named a leader in AI decisioning by Forrester Research, InRule was among the first to enable business users to directly author, test and deploy complex decision logic. Today, actuaries, underwriters, product managers and claims specialists enjoy a wide range of benefits from decision automation.

Two more InRule technologies infuse automation capabilities enterprise-wide. Machine learning, specifically AutoML, provides big-data-based predictions to support actuaries and underwriters with guided, no-code model building. Process automation rounds out the enhanced digital experience, making every step of their journey painless, even pleasing, and empowering employees to focus on higher-value tasks.

## II. ACTUARIAL AND UNDERWRITING

While the goals and pressures of policy underwriting remain unchanged, the technology available to effectively manage them is a game changer. AI gives actuaries and underwriters the capability to control their time and better predict the future. Tech-forward insurance experts leverage smart automation to flawlessly execute repetitive and administrative functions and spend more time applying their skills at their highest level.

### **The Decisioning Hack: Saving time, reducing needless repetition and avoiding potential noncompliance**

The smartest way to work eliminates the work that doesn't have to be done. InRule decision automation jumpstarts key underwriting processes. Seamlessly integrating with popular environments, such as Salesforce® and Microsoft Dynamics® 365 and insurance workbenches Duckcreek and Guidewire, the no-code InRule platform meets actuaries and underwriters right where they are, within their workflow. Instead of going over each application from start to finish, they can set and update their decision logic using plain-language menus. Once decision logic is deployed, the rule application does the rest, diverting, approving, rejecting or other action-based parameters determined by the actuary and providing transparency into the reasoning behind the outcome for each decision.



Beyond the mere execution of rules, InRule Decisioning saves actuaries and underwriters time and minimizes delays for info requests. The robust, flexible platform connects with external databases via APIs to extract relevant data necessary for required information fields and speed processing completion.

Decisioning brings consistency to application outcomes. It ensures processing accuracy. It makes life better for actuaries and underwriters by taking away the pain of repetitive administrative functions. It imposes actuary- and underwriter-defined rules, ensuring consistency of decisions.

AI jumpstarts the eligibility determination process, slashing the time required to a fraction. It gives underwriting experts an advantage over those yet to leverage its many benefits, including:

**80% TIME SAVINGS** No-code AI decisioning saves insurance organizations a reported average of 80% reduction in time spent changing or updating decision logic. Insurance subject matter experts can author, update and deploy their own decision logic faster and without IT intervention with easy-to-use menus and business language rules.

**ASSURED COMPLIANCE** Managing the internal and external regulations governing insurers is a vital job that can be improved with AI. Decisioning rules supported by process automation executes all mandated functions and notifications, ensuring consistency and compliance.

**INSTANT INFORMATION** InRule can connect with external databases to extract relevant applicant data from trusted sources, minimizing delays and errors.

**REUSABLE LOGIC** Author rule sets once and deploy them throughout the enterprise to create a single source of truth.

**EXTENSIVE LOGIC FUNCTIONS** Insurance rating, especially for specialty lines, requires complex logic. InRule goes beyond simple if/then logic, and empowers actuaries, underwriters and business users with one of the most robust command function libraries, featuring over 225 functions. If a function does not exist, users can create their own via our user-defined functions.

**CUSTOM VOCABULARY** InRule decisioning includes an especially useful feature for regional and nationwide insurers. Business managers faced with designing decision logic for multiple states or other governmental jurisdictions can use custom vocabulary to streamline rules authoring by creating custom commands, such as “add tax,” which can then pull the correct data from an updatable, comprehensive table, in this case the current taxes for every region in which the company operates. Create custom vocabulary once and use it as a shortcut forever.

**EASY INTERFACE** InRule is made for non-technical users to create, test and deploy rules quickly and easily, using a variety of methods, including business language authoring through simple drop-down menus and flexible prompts or decision tables.

**MINIMIZING LONG-RANGE EXPOSURE** A particular hazard for commercial insurers is payouts for claims that arise years after policy initiation, even after the original policy expires. InRule Machine Learning can provide unique intelligence on associated factors that may alert to potential long-range exposures. Decisioning provides an accessible way to put ML intelligence to work, flagging specified applications for further review and enforcing guardrails to reject policy applications that may result in payouts years, even decades later.

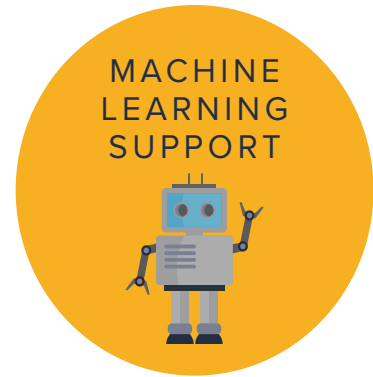
**SCENARIO HEAVEN** Testing capabilities of InRule allow actuaries, underwriters and business users to run rule scenarios until their hearts' content. Users know exactly the effect of rule changes based on live data without actual deployment. Sometimes a single change can have an outsized impact. Trace logs help determine why testing fails.

**NORMALIZED, AVAILABLE DATA** Wherever the data, whatever its format, InRule can likely accommodate it. With business rules, users can feed the data sources of their choosing into the platform. Data scientists can effectively normalize data from a wide range of sources, in some cases, even written in sundown languages. Actuaries and underwriters can base decisions on complete, accurate input.

**EASE FOR DevOps** DevOps services enable automation of testing and promotion of a new rule application from dev to production, speeding deployment and greatly easing burdens on IT staff.

## Machine Learning Support: Predictions, more predictions, plus fraud detection

Machine learning adds the weight of big data to better optimize underwriting outcomes. AutoML enables actuaries to build predictive models without IT assistance. Powerful algorithms, such as gradient-boosted decision trees and probabilistic k-nearest neighbor, crunch through mass data pools, finding connections in occurrences that are far beyond human capability. Actuarial and business users enjoy the advantage of actionable intel to:



**SEIZE EVERY ADVANTAGE** Certain insurance sectors, such as flood insurance, can be as dynamic as the weather itself. Assessing every available data point regarding every locality in question to land on the perfect coverage exposure and coverage rate for every product offering is a job too big for humans and just right for ML.

**MAKE BETTER BETS BASED ON THE “WHY”** ML predictions are nothing without knowing the underlying factors behind them. InRule delivers robust explainability, instantly revealing the most closely associated factors behind a customer or applicant action, with the percentage association of each. Actuaries, underwriters and business users can zero in on a single or handful of highly determinative factors to exploit or flag, as the case may be.

**DEFEAT FRAUD** Dual ML models form the tightest net. Supervised models seek out known fraudulent markers. Unsupervised models detect anomalies on their own. ML predictions inform decisioning logic to flag suspect applications, facilitating better underwriting outcomes with verified data.

**PREVENT CHURN AND ABANDONMENT** ML can capture every customer interaction and identify collective signifiers that they may churn or abandon an application. Based on big-data intel, business experts can author decision logic to trigger churn alerts and automatically fire off targeted incentives to prevent customers from churning.



## Process Automation Completion: Forming end-to-end, AI-powered capability

InRule delivers comprehensive automation capability with no-code process automation. Decisions are handled through established claims workflows, which include exception and cadence management. Business and non-technical staff can build, run and monitor automated workflows that instantly execute process functions, including:

**PAYOUTS AND PREMIUM COLLECTIONS** Process automation of claim payments as well as monthly or quarterly premium billing ensures seamless case resolution.

**HUMANS IN THE LOOP** Beyond execution, process automation keeps humans in the loop by moving applications, premiums, claims and more to the next correct party and ensuring any issues that arise throughout the lifecycle are reviewed by the responsible owner. Claims are traceable and accessible to the right people at the right time.

**PAPER NOTIFICATIONS** Upon policy issuance, process automation mails full policy information as well as updates and notifications, immediately and flawlessly.

## Managing Goals: Minimizing loss ratio versus maximizing premiums

As the aim of actuaries and underwriters remains constant (to minimize loss ratios) so does a major ongoing challenge: pressure from sales to boost policy approvals. InRule AI power is a friend and aid to both camps. Industry-leading decisioning, backed by deep machine learning, empowers insurance organizations to hit and maintain their desired sweet spot, wherever it is, with key capabilities, including:

### *Loss Minimization*

**DECISIONING GUARDRAILS** Actuaries, underwriters and other subject matter experts can directly author, test and deploy decision logic ensuring that every application conforms to their specified rules, eliminating any losses due to their haphazard imposition.

**MACHINE LEARNING SUPPORT** InRule enhances no-code decisioning with powerful ML capabilities that are just as accessible to non-technical users. Powerful algorithms crunch through, segment and find related factors in mass data sets that are well beyond human capacity, allowing actuaries and underwriters to make better decisions.

**CLEAN, COMPLETE DATA** The InRule platform connects with specified, even siloed, databases to extract relevant rating information from trusted sources, ensuring the accuracy of application data points. Actuaries and underwriters gain speed and confidence to effectively balance loss ratio against sales demands.



### *Premium Maximization*

**APPLICANT IMMERSION** InRule powers a seamless, pleasing applicant experience. Fast, specified decisioning routes interested parties on their way to becoming customers. Machine learning kicks in to inspire potential abandoners to keep going to application completion and submittal. Process automation enables organizations to deploy established patterns and workflows, making sure all activities follow the correct cadence.

**SPEED TO AGENT** Decisioning automates all determinations except those specified and retrieves all required information from just about any specified database, slashing the time required to process an application. Speedier approvals make for happier agent clients.

**SEIZING OPPORTUNITIES FIRST** ML enables insurers to meet new coverage needs as quickly as they arise. Captured data feeds ML models that show where policy needs are trending. Data scientists are equipped to alert product teams to ripe opportunities to fill a new insurance gap before competitors in the market.

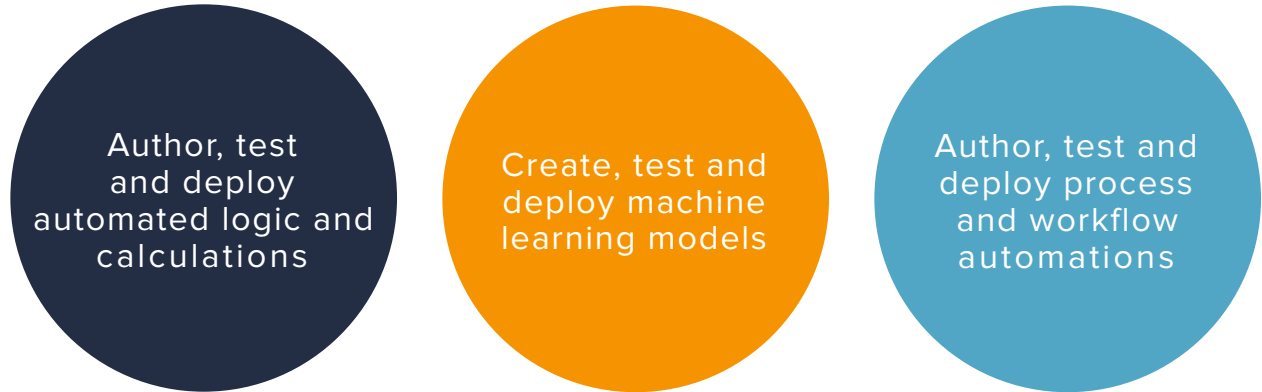
## III. TECHNICAL CONSIDERATIONS

### Attention IT: Your ideal AI platform is here

More than two decades ago, InRule developed one of the first no-code decisioning platforms. Since then, we've refined UX and enriched our capabilities to meet users' needs and desires. We've earned the loyalty of leading specialty insurers, as well as leaders and newcomers in a growing list of segments, by making automation work for everyone – actuaries, underwriters, product managers and IT staff.

### *Restrict or Democratize*

InRule delivers AI decisioning, machine learning and process automation through a plain-language interface. Business users can directly perform actions once requiring IT hours, namely:



At the same time, InRule delivers robust control features. System engineers and IT staff can delegate authority and access to AI applications according to multiple variables, including by person, role, team or other specified group. Authority can be bestowed to entire automation functions or restricted to specific ones, such as allowing authoring and testing capabilities but restricting actual deployment to key tech personnel.

### *Author Once, Deploy Repeatedly*

InRule delivers AI decisioning, machine learning and process automation through a plain-InRule simplifies and eases authoring, testing, deployment and reuse of decision logic. Write it once, then deploy it over and over again, across almost any enterprise system.

### *Designed to Maintain*

Ease of use includes ease of maintenance. InRule applications are designed with IT staff in mind. Modular software components enable quick troubleshooting and resolutions to automation issues.

## IV. CLAIMS RESOLUTION

### **Cementing With Service: Turning claims into an opportunity to foster loyalty**

Speedy, painless claims processing and resolution is a time-tested method for turning a policyholder into a lifelong devotee. The combined power of AI decisioning and process automation delivers the seamless user experience that today's customers expect and demand. InRule delivers automation capabilities and user accessibility to optimize the once-onerous task of insurance claims.



### *SMEs in Charge*

Eliminating extraneous communications eliminates miscommunications and delays. InRule enables subject matter experts, product managers and key non-technical users to directly author, test and deploy complex decision logic. Direct SME control speeds updating logic in response to market forces. Once authored, logic can be reused across systems enterprise-wide.

### *Speed + Accuracy = Satisfaction*

For distressed, suffering or simply inconvenienced policyholders, AI can be a friend during their time of need, turning days, even months into minutes to gain claim approval and resolution.

Decision automation speeds information intake and directs claim data to approved healthcare providers, body/repair shops and other service outlets. Decisioning can approve claims, determine costs and payments and, in conjunction with powerful ML, detect fraud.

Process automation completes the digitization of the customer experience. Dissemination of documentation, policy updates and notices, renewal, policy modification and cancellation notices are all executed in software milliseconds versus person-hours. Each claim experience is optimal.

## V. CUSTOMER RETENTION

### **Enhancing Every Interaction: Combining no-code AI power seamlessly delights customers in the best way, invisibly**

Turning today's customer into one for many tomorrows entails delivering satisfaction at every opportunity. The power of InRule, incorporating decisioning, machine learning and process automation, enables insurance providers to deliver a complete AI-enhanced experience. From initial application through policy issuance to claims processing and resolution, advanced automation systems delight policyholders through every stage of the customer lifecycle.

### *Delighting at Every Touchpoint*

Better than meeting customer needs is anticipating them. Machine learning insights detect policyholders at risk of non-renewal, applicants about to abandon before application completion and pinpoint their ideal pricing. InRule explainable ML reveals more actionable insights behind current behavior. Customer intelligence reveals detailed demographic breakdowns by coverage product or any specified identifier.

Decisioning and process automation complete the AI-empowered circle. Whatever their needs, however large their workforce, InRule enables insurance organizations to provide customer





service excellence, wherever and however they need it. AI supports call center agents through instant eligibility determinations, automatically filling data fields and providing relevant caller intel. Whatever the contact channel, with AI onboard, all pathways lead to happiness.

## Conclusion

### THE POWER TO MANAGE CHANGE

As the inevitable winds of change blow through the most traditional of service industries, a certain amount of resistance and fear of upheaval are to be expected. In exchange for embracing no-code AI, this game-changing technology offers specialty insurers, P&C guarantors and healthcare payors rewards aplenty – new levels of speed, transparency and explainability, protection against fraud and noncompliance, newfound customer delight and the ability to see change coming and react effectively. It offers adopters a streamlined path to systemwide modernization while leaving non-adopters saddled with legacy systems and the associated risks and challenges of competing against tech-savvy organizations.

InRule brings the full power of AI to insurers. Industry-leading decision automation provides greater flexibility and control in underwriting and policymaking outcomes, as well as greater returns. Supported by machine learning and process automation, our no-code, the user-accessible platform enables insurers to provide their customers with a total AI-enhanced user experience, satisfying at every interaction. They enjoy the fruits of advanced digital transformation, averaging an independently reported 421 percent ROI and a total platform value of over \$6 million. They feel the breeze of leadership, hitting full automation stride as their competitors remain standing at the starting line.

From Aon and Allstate to Beazley, Tokio Marine, Markel, Shipowners and more, learn what a growing list of insurers already know. Say yes to the transformative capability of InRule's comprehensive AI power. Open hearts and minds to the infinite potential of automated decisioning, supported by machine learning and process automation. Start your AI journey today. And embrace change and all the advantages it brings.

## About InRule

InRule Technology is an AI decisioning company providing integrated decisioning, machine learning and process automation software to the enterprise. By enabling IT and business leaders to make better decisions faster, operationalize machine learning and improve complex processes, the InRule platform increases productivity, drives revenue, and provides exceptional business outcomes. More than 500 organizations worldwide rely on InRule for mission critical applications. InRule Technology has been delivering measurable business and IT results since 2002. Learn how to make automation accessible at [www.inrule.com](http://www.inrule.com).



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