### **FORRESTER**<sup>®</sup>

## The Total Economic Impact™ Of InRule

Cost Savings And Business Benefits Enabled By InRule

AUGUST 2023

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#### ABOUT FORRESTER CONSULTING

Forrester provides independent and objective research-based consulting to help leaders deliver key transformation outcomes. Fueled by our customer-obsessed research, Forrester's seasoned consultants partner with leaders to execute on their priorities using a unique engagement model that tailors to diverse needs and ensures lasting impact. For more information, visit forrester.com/consulting.

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#### **Executive Summary**

The endless stream of critical, repeatable decisions is a pressing challenge for enterprises undergoing digital transformation.<sup>1</sup> As such, performing intelligent, automated, and real-time decisions is essential to differentiate industry leaders from competitors.<sup>2</sup> InRule empowers business users to use human decision logic and AI models to author and optimize business rules describing decision logic without coding. As a result, organizations can make more effective decisions to drive business growth.

Enterprises trust <u>InRule's</u> AI decisioning software for transparent, explainable decisions, workflows, and machine learning predictions. The InRule platform enables IT and business users, regardless of their level of technical expertise, to deploy AI-powered applications that enhance customer and employee experiences, reduce risk, and promote compliance.

InRule commissioned Forrester Consulting to conduct a Total Economic Impact<sup>™</sup> (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying InRule.<sup>3</sup> The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of InRule on their organizations.

Time savings from developing complex business rules with InRule



72 hours

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed six representatives with experience using the decisioning and process automation components of the InRule platform. For the purposes of this study,



Forrester aggregated five of the interviewees' experiences and combined the results into a single <u>composite organization</u>. The composite organization is representative of these five interviewees' experience using InRule Decisioning.

Prior to using InRule, the interviewees noted how their organizations struggled to operate in and manage their complex, antiquated decisioning environments. Business rules describing decision logic were hardcoded by IT personnel in traditional coding environments within siloed tools across the organization. As a result, organizations saw duplicated efforts, decision logic that was difficult to modify in accordance to changes in highly regulated and fast-changing business environments, and an inability to involve business users in the decisioning logic production process. Overall, this restricted business outcomes and hindered both employee and customer experiences. By implementing InRule's no-code AI decisioning platform, organizations could deploy decision logic easier and faster and put the power of decision automation directly in the hands of business users. This allowed organizations to realize improvements in key metrics and workflows, such as claims management, nonpayments, fraud, and personnel costs, while creating the flexibility to govern a facilitated decisioning process throughout the entire lifecycle.

Additionally, one organization that used InRule's Process Automation offering was able to automate workflows and improve operational efficiency across its business-critical processes. Through this investment, the organization achieved greater business agility to remain well-adapted to the changing market landscape.

#### **KEY FINDINGS**

**Quantified benefits.** Three-year, risk-adjusted present value (PV) quantified benefits for the composite organization include:

- An up to 80% reduction in business rule development timelines. InRule's low-code decisioning platform allows IT staff to reduce time spent developing business rules to describe decision logic and reallocate the task to business users. With InRule, organizations could also implement decision logic faster, execute more complex decision logic, and apply a higher volume of business rules to describe decision logic per year. Faster business rule development timelines save the composite organization \$2.9 million over three years.
- An 80% reduction in time spent modifying a business rule. With improved visibility into decisioning logic and no-code decision automation, InRule enables nontechnical users to update a business rule describing decision logic themselves and facilitate ongoing decision logic management faster. This results in \$422,000 in

"We want to become more digital, and InRule's flexible decisioning engine supports that vision. With InRule, I can put decision logic into the system and know it's going to get its decisions right every time. This helps push business decision logic that is critical to driving digital journeys forward with as little friction as possible to the consumer. If someone asked me to, I could probably sit down and do a slide deck with about half a dozen slides in it just talking about our key focuses as an organization and how InRule supports them."

### Head of IT strategy and architecture, insurance

savings for the composite organization over three years.

- A \$3.8 million increase in profit due to business rule sophistication. Implementing more nuanced and more frequent business rules to describe decision logic faster allows the composite organization to reduce loss rates and, as a result, increase revenue and profit.
- Retiring legacy on-premises solutions
   resulting in \$268,000 in savings. Once InRule
   is adopted, the composite organization
   decommissions legacy solutions, which reduces
   legacy licensing, infrastructure, maintenance, and
   support costs.

**Unquantified benefits.** Benefits that provide value for the composite organization but are not quantified in this study include:

- Increased transparency and agility. InRule
  offers visibility and explainability into the
  decisions being made. This allows organizations
  to increase their confidence in decisioning logic
  and take optimized, data-driven action to adapt to
  market and regulatory changes.
- Improved CX through enhanced visibility. Through more accurate processes, improved transparency into decision-making, and increased insight into customer needs, organizations qualitatively saw improvements in their CX delivery.
- Bolstered relationship between business and IT. Having business users own decision logic delivery rather than IT results in more successful outputs and alleviates the pressure on IT to deliver a quality result.

**Costs.** Three-year, risk-adjusted PV costs for the composite organization include:

- Fees to InRule. Consumption fees for InRule's software-as-a-service (SaaS) platform are based on a variety of factors, including the number of users by license type, performance requirements, number of environments, and integrations. There is also a one-time fee for InRule professional services during the initial deployment period. Based on the composite organization's size and usage, this totals \$821,000 over three years.
- Internal fees. Members of IT and business teams are involved in InRule implementation and deployment. IT FTEs continue to manage the solution on an ongoing basis. All users of the platform from both IT and business teams are trained on the platform. Internal fees cost the organization \$612,000 over three years.

The representative interviews and financial analysis found that a composite organization experiences benefits of \$7.47 million over three years versus costs of \$1.43 million, adding up to a net present value (NPV) of \$6.03 million and an ROI of 421%.



"Now if there's a project or a program that needs a business rule, the rule is by far and away the quickest component to provision of the whole process."

- Project manager, financial services

#### **TEI FRAMEWORK AND METHODOLOGY**

From the information provided in the interviews, Forrester constructed a Total Economic Impact<sup>™</sup> framework for those organizations considering an investment in InRule.

The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision. Forrester took a multistep approach to evaluate the impact that InRule can have on an organization.

#### DISCLOSURES

Readers should be aware of the following:

This study is commissioned by InRule and delivered by Forrester Consulting. It is not meant to be used as a competitive analysis.

Forrester makes no assumptions as to the potential ROI that other organizations will receive. Forrester strongly advises that readers use their own estimates within the framework provided in the study to determine the appropriateness of an investment in InRule.

InRule reviewed and provided feedback to Forrester, but Forrester maintains editorial control over the study and its findings and does not accept changes to the study that contradict Forrester's findings or obscure the meaning of the study.

InRule provided the customer names for the interviews but did not participate in the interviews.



#### **DUE DILIGENCE**

Interviewed InRule stakeholders and Forrester analysts to gather data relative to InRule.



#### INTERVIEWS

Interviewed six representatives at organizations using InRule to obtain data with respect to costs, benefits, and risks.



#### **COMPOSITE ORGANIZATION**

Designed a composite organization based on characteristics of five of the interviewees' organizations.



#### FINANCIAL MODEL FRAMEWORK

Constructed a financial model representative of the interviews using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the interviewees.



#### **CASE STUDY**

Employed four fundamental elements of TEI in modeling the investment impact: benefits, costs, flexibility, and risks. Given the increasing sophistication of ROI analyses related to IT investments, Forrester's TEI methodology provides a complete picture of the total economic impact of purchase decisions. Please see Appendix A for additional information on the TEI methodology.

### The InRule Customer Journey

Drivers leading to the InRule investment

Interviews							
Role	Industry	Region	Revenue	InRule Usage			
Head of IT strategy and architecture	Insurance	Global	\$16B	Decisioning			
Head of IT application architecture	Insurance	Global	\$16B	Decisioning			
Project manager	Financial services	Global	\$6B	Decisioning			
Architect	Financial services	Global	\$6B	Decisioning			
Senior director, product strategy	Healthcare services	North America	\$2B	Decisioning			
Data and analytics manager	Manufacturing/Retail	Global	\$30B	Process automation*			

\*not included in the composite organization and subsequent financial analysis. Discussed in 'Product Spotlight' section.

#### **KEY CHALLENGES**

Prior to investing in InRule, interviewees' organizations were using a mix of antiquated, unintegrated on-premises decisioning engines, and mainframe platforms, and/or decision logic hard coded into software applications. The interviewees' organizations struggled with several shared challenges, including:

Difficulties managing and working in a complex, antiguated environment. Over time, the previous solutions became very difficult to work with as manufacturers no longer supported the infrastructure itself. Additionally, organizations lost the staff expertise who created the business rules describing decision logic, and the personnel capable of changing the decision logic on these systems. The head of IT strategy and architecture at the insurance organization said: "The way in which our old systems depicted decision logic was very difficult to understand, which made the business rules hard to modernize. We actually only had a few technical specialists capable of doing so, and that number continued to dwindle over time."

Organizations also lacked visibility into the decision logic being used and into the decisioning results as data was going in and coming out. The same interviewee explained: "There could've been instances where a business rule wasn't coded the way it should be or in the optimal way, but we didn't have great visibility into the actual logic being used in order to comment on that. And with no audit trail of changes, the rule could have more and more gaps over time. It was really a black box."

"[Our legacy setup was] fragile, slow to change, and, being brutally honest, our subject matter expert loss was quite critical. We lost a lot of knowledge around how decisions were being made, and with no central repository of decision logic history, we couldn't really make updates."

Architect, financial services

 A highly manual rules creation process hindered IT teams' productivity. Interviewees collectively spoke about manual decision authoring and implementation processes that hampered IT productivity and restricted team capacity to adapt to business needs as the organization scaled. Summarizing the pre-InRule experience, one interviewee stated: "Business rules could take weeks to make. When it takes this long to pivot, our elasticity to respond to the needs of the market reduces. That puts us at a disadvantage."

The senior director, product strategy at a healthcare services organization echoed this sentiment. They explained: "If a business or operations team wanted to make a change in decision logic, they would have to send a ticket to IT. Then they had to wait because IT had limited capacity and making changes was an arduous process. It could take upwards of a month to get a change implemented."

"We wanted to get decision logic management out of the hands of the IT departments and into the hands of the business functions that are working directly with the clients. [They] just have a better understanding of the product and of the business in general, and [this allowed] them to have more ownership, really full ownership, of the decision logic moving forward."

Senior director, product strategy, healthcare services

- The inability to democratize decision authoring. Interviewees' organizations saw value by empowering business users rather than developers to define decision logic and modify business rules, but working in a traditional coding environment made that difficult. Even developing noncomplex business rules was difficult to pass off from IT teams. The senior director, product strategy noted, "Business users know what they need best, so we really saw value in investing in an environment where these nontechnical users could build for what they needed."
- Inefficiencies due to siloed systems.
   Interviewees' organizations were inhibited by the complexities of multiple, disjointed tooling. With disparate decisioning tools and setups across different teams, locations, and sets of data, interviewees mentioned that there tended to be a certain amount of duplication. The architect at a financial services organization said, "Our rules and projects would deliver in siloes, so we would have decision logic in place essentially doing massively overlapping capabilities. With no single understanding of what business rules we had and what they were doing, we ended up doing additional work for no reason."
- Restricted business outcomes. With a number of technologies that were internal, disparate, and antiquated, as well as siloed workflows, limited working capacities for creating business rules describing decision logic, and difficult and timeconsuming modifications for hardcoded business rules to fit the needs of the business. organizations were not able to maximize the value they may have been able to generate through executing decision logic. The senior director, product strategy at a healthcare services organization said, "By not having visibility into how our decision logic performing, we couldn't see where we have gaps in order to make changes and enhance those rules to try to get more value out of them."

The head of IT application architecture at the insurance organization explained: "There were a lot of complex, real-time use cases we wanted to implement decision logic for, such as comparing contracts to claims to ensure we aren't overpaying. Implementing decision logic for this sort of use case would require not just a rules engine but integrations with third-party systems that record contracts and [perform] live comparisons of contractual analyses against a particular claim. We did not have the opportunity to do this with our existing system, which meant we were giving out free money."

"Within our reclamation billing use case, there is a large volume of decision logic and configurations that historically were built within one of our legacy mainframe platforms. We did not have great visibility, and without being able to see the logic and analyze it, did not have great opportunity to make adjustments, even if they could have been beneficial."

Senior director, product strategy, healthcare services

#### **INVESTMENT OBJECTIVES**

The interviewees' organizations searched for a solution that could:

 Break down silos, simplify their technology stack, and centralize decision logic for easy access organization wide.

- Reduce or eliminate the burden on expensive personnel such as data scientists and senior developers.
- Empower business users to directly author and modify business rules describing decision logic without writing code.
- Cut down logic duplication and speed up decision logic deployment.
- Centralize decision logic maintenance and governance and improve logic transparency and explainability.
- Scale to manage their organizations' future decisioning use cases.
- Uplift employee and partner experiences.

After a request for proposal (RFP) and business case process evaluating multiple vendors using a select group of individuals and a specific use case, the interviewees' organizations chose InRule and began deployment.

> "We went with InRule because of the usability and level of functionality where a business user could and would have more control versus still having to be fairly heavily dependent on IT folks to code changes or code new decision logic."

Senior director, product strategy, healthcare services

#### **COMPOSITE ORGANIZATION**

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected.

The composite organization is representative of the five of the six interviewees whose organizations used InRule Decisioning, and it is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

**Description of composite.** The global organization has \$10 billion in revenue and 20,000 employees spread across multiple locations. The organization faces a high volume of critical, repeatable decisions, and is in an industry affected by evolving regulations, prices, and policies.

Before investing in InRule, decision logic was mainly hardcoded with a collection of legacy on-premises solutions. The organization identified weaknesses with its siloed, hardcoded setup and saw the need for a more centralized approach to decision logic creation. It looked for a solution that involved both business and IT folks and easily allowed for decision logic modification to keep up with changes in the industry. Therefore, the composite organization is looking to streamline the decision logic production process to build efficient operations, improve internal agility, and better engage with customers.

#### **Key Assumptions**

- \$10 billion annual revenue
- 5 IT and 25 business user FTEs using InRule
- Thousands of rules created per year
- Cloud deployment

**Deployment characteristics.** The composite organization uses InRule's SaaS-based decisioning platform to implement decisioning logic for both back"Having a centralized platform where all of our decision logic could reside allows us to be much more efficient and scalable. We are able to leverage decision logic across the organization as opposed to having to create standalone configurations that, over time, maybe got out of sync or were unnecessarily duplicated."

Head of IT application architecture, insurance

office and business-facing operations. The organization created approximately 500 business rules describing decision logic per year in its legacy setup. It implements InRule as a strategic initiative with a clear view of which use cases and decisions it initially hopes to optimize based on decision logic built with prior solutions. The organization expands to additional use cases over time and creates thousands of business rules describing decision logic per year in its new InRule environment.

Thirty-five FTE, consisting of 25 business users and five IT staff, are involved in using InRule. Decision logic creation, delivery, and ongoing management and modification are primarily managed by business FTE. IT FTEs are responsible for technical support and management related to the InRule platform, decision logic creation assistance if necessary, and upholding the interconnectivity between InRule and the organization's data sources.

#### **Analysis Of Benefits**

Quantified benefit data as applied to the composite

Total Benefits								
Ref.	Benefit	Year 1	Year 2	Year 3	Total	Present Value		
Atr	Rule development cost avoidance	\$1,185,840	\$1,185,840	\$1,185,840	\$3,557,520	\$2,949,009		
Btr	Rule modification cost avoidance	\$169,776	\$169,776	\$169,776	\$509,328	\$422,208		
Ctr	Increase in profit due to rules sophistication	\$640,000	\$1,600,000	\$2,560,000	\$4,800,000	\$3,827,498		
Dtr	Savings from retiring on- premises legacy solutions	\$58,650	\$117,300	\$156,400	\$332,350	\$267,766		
	Total benefits (risk-adjusted)	\$2,054,266	\$3,072,916	\$4,072,016	\$9,199,198	\$7,466,481		

#### RULE DEVELOPMENT COST AVOIDANCE

**Evidence and data.** According to Forrester Research, hard-coded digital decisions are unnecessarily expensive to develop, involve expensive technical personnel, and are devoid of analytics and AI.<sup>4</sup> With InRule Decisioning, interviewees' organizations experienced both faster delivery timelines and reductions in the cost of resources needed to deploy business rules describing decision logic. Interviewees attributed this to InRule Decisioning's no-code development environment, which, with built in automation, enabled business users to create, test, and deploy both simple and complex business rules and logic. InRule freed up IT and developer FTEs to reallocate their time to more strategic, value-add initiatives.

 The two interviewees at the insurance organization reported that it would take them weeks of full-time work to try and introduce a new business rule, and the developer in charge of it would have to involve several personnel from the business and operations teams to retrieve the appropriate data, write up requirements, and understand the necessary logic (which oftentimes required numerous back and forth communications due to misinterpretations). With InRule Decisioning, business analysts were able to build and test the decision logic and write the business rule, which eliminated the tedious back and forth, and IT teams could instead focus on processing speed and architecture. The head of IT application architecture said that the same business rule, depending on its complexity, "can be done within hours, even less so for less complex decision logic, and it can be done in a more sustainable, documented way. This makes it easier to manage and maintain going forward."

#### "We can use InRule to express requirements rather than having to write up a whole document."

Head of IT strategy and architecture, insurance

 For another part of the insurance organization, the previous decisioning solution required it to define all business rules describing decision logic in a way that was complex enough that it had to outsource it. The head of IT strategy and architecture explained: "We had to have a service company standing by to define decision logic and maintain it, and we basically couldn't do any complex customizations. For instance, if I wanted to generate a very, very complex set of business rules, we needed to supply the rule engine with every single data point that any of those rules can attach to or potentially use, which could be, frankly, tens of thousands of different data points. And that needed to be supplied out front, which was a really big constraint. InRule does not have that constraint because it's able to integrate through APIs and connectors to other software. This gives us flexibility to actually act on what we want to do and implement more decision logic with more complexity. This saves us time and millions of dollars, as we are able to bring this process in-house as we centralize the organization to InRule."

 The healthcare services organization used InRule Decisioning with its reclamation billing process. It cut the time it took for developing complex business rules describing decision logic by 80%

## With InRule, organizations could:

- Implement decision logic faster.
- Implement more complex decision logic.
- Implement more business rules per year.

and noncomplex business rules describing decision logic by 90%. With InRule's rule repository management portal, the organization also saw benefits from promoting rules from one environment to another, rather than duplicating the effort.

The financial services organization cut down its decision logic development process from months to one to two weeks. It was also able to reallocate this task from its scrum team to its center of excellence team, which was comprised of business personnel. The project manager said: "Developing the decision logic for a business rule itself was a big part of the production lifecycle. By making that daunting process easier, we can spend more time on testing and looking into other opportunities for efficiencies and business value through business rules."

**Modeling and assumptions.** For the composite organization, Forrester assumes:

- The composite organization implemented 500 business rules describing decision logic per year in its legacy environment. The number of business rules informing decisions has drastically increased after implementing InRule. However, in order to quantify the value of business rule development cost avoidance, this benefit must calculate the savings based on prior state characteristics.
- Forty percent of business rules describing decision logic were considered complex, meaning they required integrations with numerous third-party systems, are niche/location specific decision logic, use decisions being made based on numerous parameters, and/or have instances where regulatory or organizational changes regularly affect the decision logic. Examples include claims adjudication to the country/region level and customer risk assessments based on more in-depth criteria.

- Previously, a complex business rule required one IT FTE and 120 hours of work to manually gather all the data and write and develop the decision logic.
- With InRule, developing complex business rules takes 60% less time, or 72 fewer hours. Since users can author and develop business rules describing decision logic without using code, the organization is able to reallocate this task to business users. One business user FTE is involved in the decision logic development process per rule.
- The hourly fully burdened annual salary of an IT FTE is \$63.
- The hourly fully burdened salary of a business user FTE is \$53.
- The remaining 60% of the business rules describing decision logic created in the legacy environment were noncomplex, meaning gathering decision logic required fewer integrations with third party systems, the business rules are created for use cases with a lower data volume flow, the business rules are high level, and/or the business rules do not involve decisions being made on numerous parameters. Examples include overall global decision logic and high-level decision logic for identifying fraudulent identities.
- Previously, a noncomplex business rule required one IT FTE and 20 hours of work to be deployed.
- With InRule, developing noncomplex business rules takes 80% less time, or 16 less hours, and the organization is able to reallocate this task to business users. One business user FTE is involved in the decision logic development process per rule.

**Risks.** Rule development cost avoidance may vary depending on the following:

- The size, scope, number, and complexity of business rules being implemented.
- The available capacity and skill sets of the IT and business personnel working on projects.
- The salaries of FTEs.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$2.9 million.

> "If we wanted to replicate the same amount of value at the scale we've been able to generate with InRule in our previous environment, it would take double digits more people, and they would have to be IT folks."

Senior director, product strategy, healthcare services

Rule	Rule Development Cost Avoidance								
Ref.	Metric	Source	Year 1	Year 2	Year 3				
A1	Number of rules created per year in legacy environment	Composite	500	500	500				
A2	Number of complex rules created per year in legacy environment	A1*40%	200	200	200				
A3	IT FTE required to create a rule before InRule	Interviews	1	1	1				
A4	IT FTE hourly salary (fully burdened)	Composite	\$63	\$63	\$63				
A5	Average time spent on rule creation before InRule (hours)	Interviews	120	120	120				
A6	Reduction in time spent on rule creation with InRule	Interviews	60%	60%	60%				
A7	Business user FTE required to create a rule with InRule	Interviews	1	1	1				
A8	Business user FTE hourly salary (fully burdened)	Composite	\$53	\$53	\$53				
A9	Subtotal: cost avoidance with InRule, complex rules	(A2*A3*A4*A5)-(A2*A7*A8*A5*(1-A6))	\$1,003,200	\$1,003,200	\$1,003,200				
A10	Number of non-complex rules created per year in legacy environment	A1*60%	300	300	300				
A11	IT FTE required to create a rule before InRule	Interviews	1	1	1				
A12	Average time spent on rule creation before InRule (hours)	Interviews	20	20	20				
A13	Reduction in time spent on rule creation with InRule	Interviews	80%	80%	80%				
A14	Business user FTE required to create a rule with InRule	Interviews	1	1	1				
A15	Subtotal: Cost avoidance with InRule, non- complex rules	(A10*A11*A4*A12)- (A10*A14*A8*A12*(1-A13))	\$314,400	\$314,400	\$314,400				
At	Rule development cost avoidance	A9+A15	\$1,317,600	\$1,317,600	\$1,317,600				
	Risk adjustment	↓10%							
Atr	Rule development cost avoidance (risk- adjusted)		\$1,185,840	\$1,185,840	\$1,185,840				
	Three-year total: \$3,557,520	Three-year	present value	: \$2,949,009					

#### **RULE MODIFICATION COST AVOIDANCE**

**Evidence and data.** Changing hard-coded decisioning logic requires IT support, which is inefficient and expensive.<sup>5</sup> With tools that improve visibility into customer decisioning criteria and streamline ongoing decision logic management and performance tuning, InRule empowered the interviewees' organizations' business users, rather than strictly developers, to manage and modify business rules describing decision logic effectively and efficiently. This is so the companies could respond faster to market changes with operational flexibility. As a result, organizations could also eliminate the time-consuming back-and-forth that occurred in the previous state, when they had to contact IT to make changes to decision logic.

 The insurance organization's interviewees claimed that it essentially couldn't modify decision logic in its previous state. The head of IT application architecture said: "If decision logic was really poorly documented and engineered, we really couldn't alter [rules] to the way they needed to be. And that happened very often. With InRule, the engineering patterns and capabilities are far, far more enhanced, so much so that we don't even need to involve IT in the process." The organization was able to cut the

"By taking custom programming out of the equation, InRule has made it easy for business users to understand decision logic and update business rules themselves."

Head of IT strategy and architecture, insurance "Since implementing InRule, it's become a regular practice of ours to look for opportunities to make modifications to decision logic where we feel like there's an opportunity to get more value."

Senior director, product strategy, healthcare services

time it took to modify business rules describing decision logic from days to hours while reallocating the task to business users.

- The healthcare services organization was able to cut the time it took to modify decision logic from three to four weeks to a real-time process with InRule's tools and from being able to avoid the back-and-forth between business and IT. The senior director, product strategy stated: "Our previous solution was not user friendly, and we had no detailed visibility into the performance of our business rules. Now we can modify decision logic faster on a business-user-friendly platform, but we also have visibility into the impact changing the decision logic could have."
- The same interviewee also highlighted how business rule centralization across geographies, teams, and — in this organization's case clients, has added additional efficiency when it comes to modifying rules. They said: "With InRule, we have global business rules deployed to everyone, rather than each individual client having their own individual set of rules. Now, if we want to make a change to a global rule, it can be applied in one place. Historically, if we had to

make that change for 200 clients, we had to make it in 200 individual places."

The architect at a financial services organization said: "Updating decision logic has become significantly faster. For contribution monitoring, for example, substantial changes can be made in around 80% less time, [taking it] from months to less than a week. Previously, we had to go through the whole scrum team, perform regression testing, all of that. We no longer have to do that."

Modeling and assumptions. For the composite organization, Forrester assumes:

The composite organization modified 30% of the business rules implemented per year in its legacy





- Previously, modifying decision logic required one • IT FTE and 24 hours of active work.
- With InRule, business rule modification takes 80% less time and can be done by business users. One business user FTE is involved in the modification process per business rule.

**Risks.** Rule modification cost avoidance may vary depending on the following:

- The size, scope, amount, and complexity of decision logic being modified.
- The available capacity and skillsets of the IT and business personnel working on projects.
- The salaries of FTEs.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of \$422,000.

Rule	ule Modification Cost Avoidance							
Ref.	Metric	Source	Year 1	Year 2	Year 3			
B1	Number of rules modified per year in previous environment	A1*30%	150	150	150			
B2	IT FTE required to modify a rule before InRule	Interviews	1	1	1			
B3	Average time spent modifying a rule before InRule (hours)	Interviews	24	24	24			
B4	Reduction in time spent modifying rules with InRule	Interviews	80%	80%	80%			
B5	Business user FTE required to modify a rule with InRule	Interviews	1	1	1			
Bt	Rule modification cost avoidance	(B1*B2*A4*B3)- (B1*B5*A8*B3*(1- B4))	\$188,640	\$188,640	\$188,640			
	Risk adjustment	↓10%						
Btr	Rule modification cost avoidance (risk- adjusted)		\$169,776	\$169,776	\$169,776			
Three-year total: \$509,328 Three-year present value: \$422,208				208				

### INCREASE IN PROFIT DUE TO RULES SOPHISTICATION

**Evidence and data.** The ability to create and maintain additional granularity with decisioning logic (e.g., parse out individual steps or criteria within strategies and use cases), implement logic faster, and iterate frequently with InRule drove down losses for the interviewees' organizations. Interviewees cited numerous use cases for which InRule is their go-to decisioning platform. These included:

- Claims processing and management.
- Fraud determination.
- Validating identities.
- Transfer in/transfer out processes.

With InRule in place, organizations could achieve optimal decisioning in shortened timeframes due to:

- Improvements in visibility.
- The ability to simulate optimal strategies and continuously optimize through feedback loops.
- Greater connectivity with data sources.
- Additional levels of automation.

As a result, organizations decreased losses and increased revenue and profit for their organizations.

 The insurance organization is considered a top player in a specific market, as it processes \$750 million worth of claims per year. Decision logic developed with InRule added additional granularity to its claims processing workflow to review whether charges from providers lined up with those in the contract and identify fraud. The head of IT application architecture explained: "Previously, we could only really create high level decision logic because the amount of time it would take to gather the necessary data points for complex decision logic with our previous solutions made that decision logic unimplementable. Therefore, when it came to looking at charges versus contracts, it had to be done manually, or a lot of times it was just not done at all. The ability to add more sophisticated decision logic to this workflow and automate the process of looking at discrepancies makes sure everything is monitored, and we can actually catch discrepancies where providers are trying to charge us more than they should instead of letting it go and having us pay the full charge. We've also become better at spotting fraudulent cases. This has saved us double-digit millions of dollars year over year."

There are cases where in the past we may have fully paid a claim because the complexity of it was beyond us. But now, we can look at finer and finer views of that situation and start to say, 'No, we're not going to pay for that,' or 'That's not appropriate.'"

Head of IT strategy and architecture, insurance

The healthcare services organization that processes claims was able to identify improper payments, recover more revenue, and implement more decision logic for faster additional granularity. It has been able to realize an additional \$30 million in revenue per year by reducing losses by 10% over time. Its senior director, product strategy said: "Our processing times have decreased exponentially since implementing InRule. If we're talking about 10 million claims, it took us upwards of two weeks to process all the claims. Now, it takes two to three days. A lot of our ability to recover revenue is time bound, so there's a potential that the claims may age out. The quicker we're able to turn around and bill out claims, the more success we have with recovering the savings behind it."

 The financial services organization has been able to apply clearer decision logic to numerous workflows, reducing errors. Its architect said: "The ability to apply local rule sets to global rule sets and automate a majority of our inbound service requests has been a massive win in terms of reducing errors around transfers and contributions and evaluating customer identities. We can increase our ability to ensure we are accepting and rejecting the correct requests based on the correct conditions in order to increase our business."

**Modeling and assumptions.** For the composite organization, Forrester assumes:

- The composite organization generates \$10 billion in annual revenue.
- The loss rate prior to implementing InRule was 4% due to the lack of granularity with decisioning logic.

- With InRule in place, the organization can add additional granularity with decisioning logic and implement business rules describing decision logic faster and more frequently. As a result, the organization's loss rate is 2% less in Year 1. This increases to an 8% reduction by Year 3 as more and more decision logic is implemented, which adds sophistication and drives down losses.
- The composite organization has an operating margin of 10%.

**Risks.** Increase in profit due to rules sophistication may vary depending on the following:

- The quality and availability of customer data.
- The before state of an organization's decisioning capabilities with respect to sophistication and personnel capacity to make timely changes.
- The industry of an organization, as it affects metrics such as loss rate, operating margin, and others affecting decisioning outcomes.
- The scope, complexity, and use case(s) for InRule.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of \$3.8 million.

Increa	ncrease in Profit Due To Rules Sophistication									
Ref.	Metric	Source	Year 1	Year 2	Year 3					
C1	Yearly revenue	Composite	\$10,000,000,000	\$10,000,000,000	\$10,000,000,000					
C2	Loss rate before InRule	Interviews	4%	4%	4%					
C3	Reduction in loss rate with InRule	Interviews	2%	5%	8%					
C4	Subtotal: Avoided revenue loss attributable to InRule	C1*C2*C3	\$8,000,000	\$20,000,000	\$32,000,000					
C5	Operating margin	Industry standard	10%	10%	10%					
Ct	Increase in profit due to rules sophistication	C1*C2*C3*C5	\$800,000	\$2,000,000	\$3,200,000					
	Risk adjustment	↓20%								
Ctr	Increase in profit due to rules sophistication (risk-adjusted)		\$640,000	\$1,600,000	\$2,560,000					
	Three-year total: \$4,800,000		Three-year present value: \$3,827,498							

#### SAVINGS FROM RETIRING ON-PREMISES LEGACY SOLUTIONS

**Evidence and data.** When implementing InRule Decisioning, interviewees' organizations were looking to fully decommission one or several legacy decisioning solutions over time. In doing so, organizations reduced administration, maintenance, and support costs associated with the solutions.

- When rolling out InRule, the insurance organization slowly migrated business rules describing decision logic over from its legacy solutions while continuing to build newer, more complex business rules on InRule. The organization looked to fully replace multiple onpremises legacy rule engines with InRule by next year. Its head of IT application architecture said, "Each of these costs in the low hundreds of thousands [of dollars], including the license and the infrastructure."
- The insurance organization's interviewees also noted that it was able to scale usage while simplifying management. InRule enabled the users to author and execute decision logic across any business process or customer-facing application that required it from centralized location. This made both decision logic maintenance and governance much more efficient, as well as technology management. The head of IT strategy and architecture explained, "If you can have one rules engine with one team versus three rules engines with three teams, its automatically a win."

#### "The ability to centralize puts us in a position to be more agile as an organization."

Project manager, financial services

"We were using an old solution for claims adjudication. Hundreds of millions of pounds a year would flow through that solution. So having an obsolescent, nonperforming decisioning engine at the heart of that was obviously a big risk and that's been removed. So we got some monetary value in there, but the big value for us is our core process, our claims management process, is less risky."

Head of IT application architecture, insurance

- The insurance organization spent around 15% of the cost of its legacy solutions on outsourced maintenance that it will be able to completely avoid once fully sunsetting legacy solutions. Additionally, by moving from an on-premises environment to a SaaS environment with InRule, solution management efforts significantly decreased, and the organization was able to bring the maintenance in-house.
- The healthcare services organization has seen hundreds of thousands of dollars in savings from moving its business decision logic away from its legacy platform and into InRule.

**Modeling and assumptions.** For the composite organization, Forrester assumes:

- The composite organization incurs \$200,000 in legacy on-premises license and infrastructure fees.
- The cost to support and maintain the legacy environment is 15% of the licensing and infrastructure fees.
- The composite organization decommissions the legacy setup incrementally as it migrates decision logic and transitions personnel to InRule. The percentage decommissioned per year decreases as the remaining decision logic in the legacy environment becomes more and more complex to migrate.

**Risks.** Savings from retiring legacy solutions may vary depending on the following:

- The scope, complexity, and contract considerations of an organization's incumbent decisioning solution(s).
- The maintenance effort, salaries, types, and number of FTEs associated with maintaining legacy solutions.
- Legacy solution deployment setup (e.g., onpremises vs. the cloud).
- The rate of decommissioning legacy solutions.
- The scope, complexity, and use case(s) for InRule.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of \$268,000.

Savings From Retiring On-Premises Legacy Solutions							
Ref.	Metric	Source	Year 1	Year 2	Year 3		
D1	Legacy on-premises license and infrastructure fees	Interviews	\$200,000	\$200,000	\$200,000		
D2	Cost of legacy on-premises maintenance and support	D1*15%	\$30,000	\$30,000	\$30,000		
D3	Percent of legacy tooling decommissioned	Interviews	30%	60%	80%		
Dt	Savings from retiring on-premises legacy solutions	(D1+D2)*D3	\$69,000	\$138,000	\$184,000		
	Risk adjustment	↓15%					
Dtr	Savings from retiring on-premises legacy solutions (risk-adjusted)		\$58,650	\$117,300	\$156,400		
	Three-year total: \$332,350		Three-year	present value: \$267,	766		

#### **UNQUANTIFIED BENEFITS**

Interviewees mentioned the following additional benefits that their organizations experienced but were not able to quantify:

Increased transparency and agility. For the industries of the interviewees' organizations, rules and regulations governed key business processes and decisions. This included accounting, policy management and issuance, reporting, and claims adjudication. InRule made the decisions for these use cases transparent and explainable, which ensured consistent, desired outcomes. Improved visibility also provided additional confidence to the organizations, especially with respect to audit and compliance processes. The head of IT application architecture at the insurance organization said, "InRule provides transparency into the business logic and calculations that are in use, making it easy to ensure compliance with regulations and reduce erroneous payments."

The interviewees also felt that their organizations were better equipped to deal with changes in their highly regulated and fast-changing business environments because of the improved visibility and increased control with InRule. The head of IT strategy and architecture from the insurance organization provided an example: "My favorite story is that our operations director was driving into the office and, [while] listening to the news, he suddenly heard about all this corruption in a particular country. So, he walked into the office and said, 'All claims for this country need to go into a special queue so we can look at them properly.' That's the sort of thing that would have previously taken us months because it would be a change to our back end, and for our previous key back-end system there was only a release every six weeks. If you missed your slot, it could be three months. [With InRule], you can do this in hours."

"We are able to generate more metrics and analytics around the performance of a business rule and the impact it's having now that we have greater visibility. We can see what levers we can pull to improve customer experience while generating more value for us."

Senior director, product strategy, healthcare services

Improved CX through enhanced visibility. According to Forrester Research, a key challenge in digital business is deciding what to do in the customer's moment of need - and then doing it. Digital decisioning software capitalizes on analytical insights about customers and business operations to automate actions for individual customers, enhancing CX.<sup>6</sup> Interviewees spoke to improvements in CX through more accurate processes and improved transparency into decisions. The project manager at the financial services organization noted: "Contributions processing has become way more accurate. We've seen a huge reduction in executed manual errors. If a client's contribution files are loaded more efficiently and with fewer client engagements, then it's a better client experience. Overall, we just have improved visibility into customer preferences, enabling us to be proactive in our decisioning. We can anticipate customer needs based on a more complete view and give them what they need faster."

Bolstered relationship between business and IT. Interviewees reported seeing strong collaboration between business and IT teams after implementing InRule. With InRule's no-code decisioning platform, interviewees' organizations were able to change the composite of the teams involved in decision logic delivery to be more business user-based, rather than IT-centric. This approach created more successful outputs and alleviated the pressure on IT to deliver a quality result. Additionally, less time was wasted on back-and-forth communications, logic was developed faster, and organizations became more agile. The project manager at a financial services organization explained, "Having business users own the delivery of decision logic with an easy-to-use platform removes the business versus technology struggle a lot of organizations experience. Business teams and technology teams now work far better together, they've got a much closer working relationship, and we see results faster."

#### FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement InRule and later realize additional uses and business opportunities, including:

Scalability and expanding use cases. Interviewees looked to explore the use of InRule in additional use cases. Over time, the ability to fine-tune, iterate on, and implement nuanced decisioning logic to more use cases may provide escalating value to these organizations. The head of IT strategy and architecture at the insurance organization said: "We definitely want to automate more decisions with InRule as we continue to grow. We want to expand its use into different markets and regions to further increase our agility as an organization. We're really trying to get it across to people that InRule can be used to add efficiencies to all parts of the business, not just the ones it's in now." • Increasing reusable components. When decision logic is defined once in InRule, it can be saved to the catalog and executed wherever and whenever it is needed. While the interviewees' organizations had begun seeing the benefits of reusability, they looked to take further advantage

> "InRule has broken down barriers between business and IT. Ultimately, this leads to improved efficiency and accuracy of delivery. When I say accuracy, I mean delivering the product where the business needs to be more competitive to provide better experiences for our members and clients."

#### Project manager, financial services

of this facet as they continued to scale InRule usage.

• Fully sunsetting legacy systems. Interviewees' organizations looked forward to fully migrating business decision logic from legacy systems into InRule to further streamline their technical architectures.

Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in <u>Appendix A</u>)

#### PRODUCT SPOTLIGHT: INRULE PROCESS AUTOMATION

The unpredictable nature of the market in recent years has made business agility more important than ever. To keep up with these constant market changes, businesses must create an architecture that can allow them to adapt to both challenges and opportunities quickly.<sup>7</sup>

Complementary to InRule Decisioning, InRule's Process Automation offering enables businesses to achieve operational efficiencies through automating workflows, which allows the organizations to be more productive and unlock business value faster.

To better understand the benefits associated with investing in InRule Process Automation, Forrester interviewed the head of data and analytic supply management at an enterprise-sized organization of global scale in the manufacturing industry.

#### **Key Challenges**

Prior to using InRule Process Automation, the interviewee's organization leveraged a combination of spreadsheets, access databases, and other disjointed tools to manage business processes. The interviewee's organization endured an array of challenges, including:

- Significant manual effort that led to consistent errors across systems. The interviewee explained: "There was a lot of manual work here and there and everywhere. You can imagine that as a large enterprise grows, [...] it becomes impossible to maneuver. There are a lot of manual mistakes made here and then everywhere and trying to implement the tool was not the easiest thing to do."
- Tedious, low-value work hindered productivity and prevented IT and business users from making meaningful contributions to the business. The interviewee revealed: "It was quite slow. It took a lot of high-informed

people to do manual boring work. InRule allowed us to take away the unnecessary, non-valueadded work. Instead of letting people work on extracting figures, sending mail, and so on, they are able to focus on bringing value to the business. ... They could [also] enjoy their worklife balance much more."

 Outdated and static business processes provided limited insight and hindered operational efficiency. The interviewee said: "We wanted to move towards the business intelligent way of working, which is more prescriptive and predictive. [It allows us to] see how the processes works or do not work [and] where you take the action."

#### Investment objectives

The interviewee's organization looked for a solution that could:

- Modernize business processes and optimize operational efficiency.
- Scale as the organization continues to experience growth across different geographic regions and markets.
- Unify communication and data across multiple geographic regions of the business.
- Enable better, more informed decision-making to adapt to the changing market.
- Reduce the burden on IT and business teams so that they can focus on more high-value work.

#### Benefits

After investing in InRule Process Automation, the organization experienced several benefits, including:

#### Improved Business Agility

By managing business processes with InRule Process Automation, the organization saw a \$1.7 billion increase in sales in one segment of the business as a result of an increase in sales in the market's specific range from 1% to 7%. With agile processes in place, the organization was able to bring products to market, evaluate their performance, and gather insights more quickly. In turn, they were able to make more strategic decisions based on market feedback to optimize business outcomes.

 The interviewee noted: "[With InRule Process Automation], we now have higher sell volumes.
 ... We went from below 1% to 7% of the total sales figure with a market-specific range. You can imagine the figures behind it going from 1% to 7% in the end. It's a lot of money we are talking about. ... That popular market specific range became very easy to apply and test."

#### **End User Automation Efficiencies**

By employing InRule Process Automation to automate daily tasks that were critical to the business, the organization was able to free up employees' time to engage in higher-value work. Rather than being occupied by menial labor, the solution enabled employees to make more meaningful contributions to the business that were more aligned with their skillset.

 The interviewee described a daily task around the onboarding contract process that the organization was able to automate: "When we employed people during the pandemic, we needed to have the signatures written everywhere before printing the paper. One person signed it and posted it and the next one was signing it and posting it and then it was disappearing somewhere. Now we have it electronically and everybody signs it the same day and everything is documented, and everybody is happy."

#### Adapting To The Changing Market

Through helping the organization identify trends in the market and make subsequent strategic decisions, InRule Process Automation has enabled the organization to remain resilient through the economic uncertainty of the last several years. The solution has also allowed the organization to keep up with the changing regulations across the geographic regions in which it operates to remain competitive.

 The interviewee noted: "When we have political strife and we have a pandemic that's happening around the whole world ... companies are losing money. We are losing money everywhere because of many different reasons. For a company like ours that is quite big, it is important to adjust fast. That is, we need to change our trends as fast as the trends are changing in the world. If we don't change, we will be off."

#### **Error Reduction**

With InRule Process Automation, the organization was able to automate workflows and lift the burden of manual work, allowing for smoother and less errorprone functionality.

#### **Improved Reporting**

Moving from a set of disjointed tools with data dispersed across systems to a single platform has allowed the organization to maintain a centralized repository of files. With easier access to documents, the organization was able to retrieve documentation required for reporting as needed to ensure that they were meeting all relevant compliance requirements.

 The interviewee revealed: "The approval flow, contract signing flows, and all of the onboarding and offboarding have legal parts connected into them. [After InRule Process Automation], our business processes are more automated and more digital. The more documentation that you have, the easier it is to just take it out and say, 'here it is.'"

### **Analysis Of Costs**

Quantified cost data as applied to the composite

Total Costs								
Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value	
Etr	Fees to InRule	\$75,000	\$300,000	\$300,000	\$300,000	\$975,000	\$821,056	
Ftr	Internal implementation and ongoing management	\$434,077	\$71,500	\$71,500	\$71,500	\$648,577	\$611,886	
	Total costs (risk- adjusted)	\$509,077	\$371,500	\$371,500	\$371,500	\$1,623,577	\$1,432,942	

#### FEES TO INRULE

**Evidence and data.** The interviewees' organizations paid annual fees to InRule dependent on how many named users and number of cores they required for production. They also paid a one-time fee for InRule professional services during the initial deployment period for conducting training, assisting with implementation, and helping design decision logic creation and execution best practices.

Fees to InRule were calculated based on a high usage volume for a customer of the composite organization's size.



**Modeling and assumptions.** For the composite organization, Forrester assumes:

 Annual fees for InRule are \$300,000 for 30 named platform users. The organization creates approximately 10,000 rules per year. "We used InRule professional services for a chunk of our training. They were also extremely helpful when it came to creating an operating model and building best practices."

Architect, financial services

- The composite organization pays \$75,000 for InRule development resources and professional services over the initial implementation period.
- Pricing may vary. Contact InRule for additional details.

**Risks.** Fees to InRule may vary depending on the following:

- The number of named users.
- The number and complexity of decision logic created using InRule.

**Results.** As the composite organization was priced directly with InRule, this cost has not been adjusted for risk, yielding a three-year total PV (discounted at 10%) of \$821,000.

Fees	Fees To InRule							
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3		
E1	Annual InRule consumption fees	Composite		\$300,000	\$300,000	\$300,000		
E2	InRule professional services fee	Composite	\$75,000					
Et	Fees to InRule	E1+E2	\$75,000	\$300,000	\$300,000	\$300,000		
	Risk adjustment	0%						
Etr	Fees to InRule (risk-adjusted)		\$75,000	\$300,000	\$300,000	\$300,000		
Three-year total: \$975,000			Th	ree-year present	value: \$821,056			

#### **INTERNAL FEES**

**Evidence and data.** Interviewees described the implementation, training, and ongoing management of InRule as simple and a relatively minimal time investment that required:

- Initial involvement from both IT and business staff for embedding the solution within an organization's environment, migrating decision logic, identifying users, understanding new use cases, user acceptance testing (UAT), establishing a governance framework, and dealing with APIs and integrations to ensure the right data could be surfaced. Roles involved in implementation included scrum teams, business and solution architects, project managers, business analysts, and CRM specialists.
- IT FTEs who provided ongoing upkeep of the solution, upheld integrations, and worked on upgrades.
- Named user platform training, which was typically over half-day training sessions with InRule. The architect at the financial services organization said: "The training exercises were great. We had a fairly wide range of team members and InRule was quite flexible in terms of the content of

courses. We could mix and match and gear training more towards business people or more technically advanced IT folks."

Organizations took an average of six months to implement InRule, integrate it into existing data systems, set up the initial use case, and roll it out to different teams and regions.

Those using the cloud-native, SaaS-based version of the platform found it easy to deploy and manage. According to the head of IT application architecture at the insurance organization: "Standing up the solution itself didn't take that long, it was more all the other stuff that comes with introducing a new solution into your environment. But in terms of ongoing management, as a SaaS solution, there's hardly any ongoing maintenance. Zero infrastructure management, and InRule owns the upgrades. Involvement with the InRule platform is really just making and managing the decision logic."

**Modeling and assumptions.** For the composite organization, Forrester assumes:

 Ten FTEs, consisting of a mix of IT and business staff, dedicate 60% of their time during the initial six-month implementation period. The organization deploys the SaaS version of InRule.

- After the initial period, five IT FTE spend 10% of their time per year maintaining InRule.
- All 30 users on InRule take part in 20 hours of training in the initial period to understand how the platform works and how it can be used to easily author decision logic for critical, repeatable decisions. Training is delivered by InRule over five half-day sessions.
- The average blended fully burdened salary for business and IT FTE is \$120,000.
- The average fully burdened salary for IT FTE is \$130,000.

**Risks.** Internal fees may vary depending on the following:

- The size, scope, and complexity of operations and InRule deployment.
- The skillset of internal FTEs involved in implementation, training, and management and their associated salaries.
- The speed of InRule adoption.

**Results.** To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of \$612,000.

"[InRule is] a low-maintenance product. It just doesn't require a lot of effort to keep it performant, it sits there and works. The only ongoing effort we apply into it is the authoring of additional decision logic."

Project manager, financial services

Interr	nternal Fees							
Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3		
F1	Number of FTEs involved in implementation	Interviews	10	0	0	0		
F2	Implementation duration (months)	Interviews	6	0	0	0		
F3	Percentage of time spent on implementation	Interviews	60%	60%	60%	60%		
F4	Average blended fully burdened salary, business and IT FTE	Composite	\$120,000	\$120,000	\$120,000	\$120,000		
F5	Subtotal: Initial implementation effort	F1*F2*F3*(F4/12 months)	\$360,000	\$0	\$0	\$0		
F6	Number of FTEs involved in ongoing management	Interviews	0	5	5	5		
F7	Percentage of time spent on ongoing management	Interviews	0%	10%	10%	10%		
F8	Average fully burdened salary, IT FTE	Composite	\$130,000	\$130,000	\$130,000	\$130,000		
F9	Subtotal: Ongoing management effort	F6*F7*F8	\$0	\$65,000	\$65,000	\$65,000		
F10	FTEs involved in training	Interviews	30	0	0	0		
F11	Training hours per FTE	Interviews	20	0	0	0		
F12	Average blended fully burdened salary, business and IT FTE	Composite	\$120,000	\$120,000	\$120,000	\$120,000		
F13	Subtotal: Training fees	F10*F11*(F12/20 80 hours)	\$34,615	\$0	\$0	\$0		
Ft	Internal implementation and ongoing management	F5+F9+F13	\$394,615	\$65,000	\$65,000	\$65,000		
	Risk adjustment	10%						
Ftr	Internal implementation and ongoing management (risk-adjusted)		\$434,077	\$71,500	\$71,500	\$71,500		
	Three-year total: \$648,57		Three-year prese	nt value: \$611,88	6			

#### **Financial Summary**

#### CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

#### Cash Flow Chart (Risk-Adjusted)



The financial results calculated in the Benefits and Costs sections can be used to determine the ROI and NPV for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

> These risk-adjusted ROI and NPV are determined by applying risk-adjustment factors to the unadjusted results in each Benefit and Cost section.

#### Cash Flow Analysis (Risk-Adjusted Estimates) Present Initial Year 1 Year 2 Year 3 Total Value (\$509,077) Total costs (\$371,500)(\$371,500)(\$371,500) (\$1,623,577) (\$1,432,942)**Total benefits** \$0 \$2,054,266 \$3,072,916 \$4,072,016 \$9,199,198 \$7,466,481 Net benefits (\$509,077) \$1,682,766 \$2,701,416 \$3,700,516 \$7,575,621 \$6,033,539 ROI 421%

### Appendix A: Total Economic Impact

Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

#### TOTAL ECONOMIC IMPACT APPROACH

**Benefits** represent the value delivered to the business by the product. The TEI methodology places equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization.

**Costs** consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.

**Flexibility** represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.

**Risks** measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in the summary tables are the sum of the initial investment and the discounted cash flows in each year. Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.

### 

#### PRESENT VALUE (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate). The PV of costs and benefits feed into the total NPV of cash flows.

#### **NET PRESENT VALUE (NPV)**

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate). A positive project NPV normally indicates that the investment should be made unless other projects have higher NPVs.



#### **RETURN ON INVESTMENT (ROI)**

A project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits less costs) by costs.



#### DISCOUNT RATE

The interest rate used in cash flow analysis to take into account the time value of money. Organizations typically use discount rates between 8% and 16%.



#### PAYBACK PERIOD

The breakeven point for an investment. This is the point in time at which net benefits (benefits minus costs) equal initial investment or cost.

#### **Appendix B: Supplemental Material**

Related Forrester Research

"The AI Decisioning Platforms Landscape, Q1 2023," Forrester Research Inc., March 6, 2023.

"<u>Digital Decisioning Solutions Advance Operational Performance In Asia Pacific</u>," Forrester Research, Inc., February 9, 2023.

"The Dawn Of Digital Decisioning," Forrester Research, Inc,. April 19, 2018.

"The Forrester Wave™: AI Decisioning Platforms, Q2 2023," Forrester, Inc., May 17, 2023.

"Human-Governed AI: The AI Decisioning Platform Landscape," Forrester Research, Inc., April 28, 2023.

### **Appendix C: Endnotes**

<sup>3</sup> Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

<sup>4</sup> Source: "<u>Introducing AI-Powered, Human-Controlled Digital Decisioning Platforms</u>," Forrester Research, Inc., August 11, 2020.

<sup>5</sup> Source: "<u>Use Digital Decisioning Solutions To Drive Your Operational Excellence</u>," Forrester Research, Inc., February 9, 2023.

<sup>6</sup> Source: "<u>The Dawn Of Digital Decisioning</u>," Forrester Research, Inc., April 19, 2018.

<sup>&</sup>lt;sup>1</sup> Source: "<u>Now Tech: Digital Decisioning Platforms, Q3 2020</u>," Forrester Research, Inc., August 25, 2020.

<sup>&</sup>lt;sup>2</sup> Source: "<u>Introducing AI-Powered, Human-Controlled Digital Decisioning Platforms</u>," Forrester Research, Inc., August 11, 2020.

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