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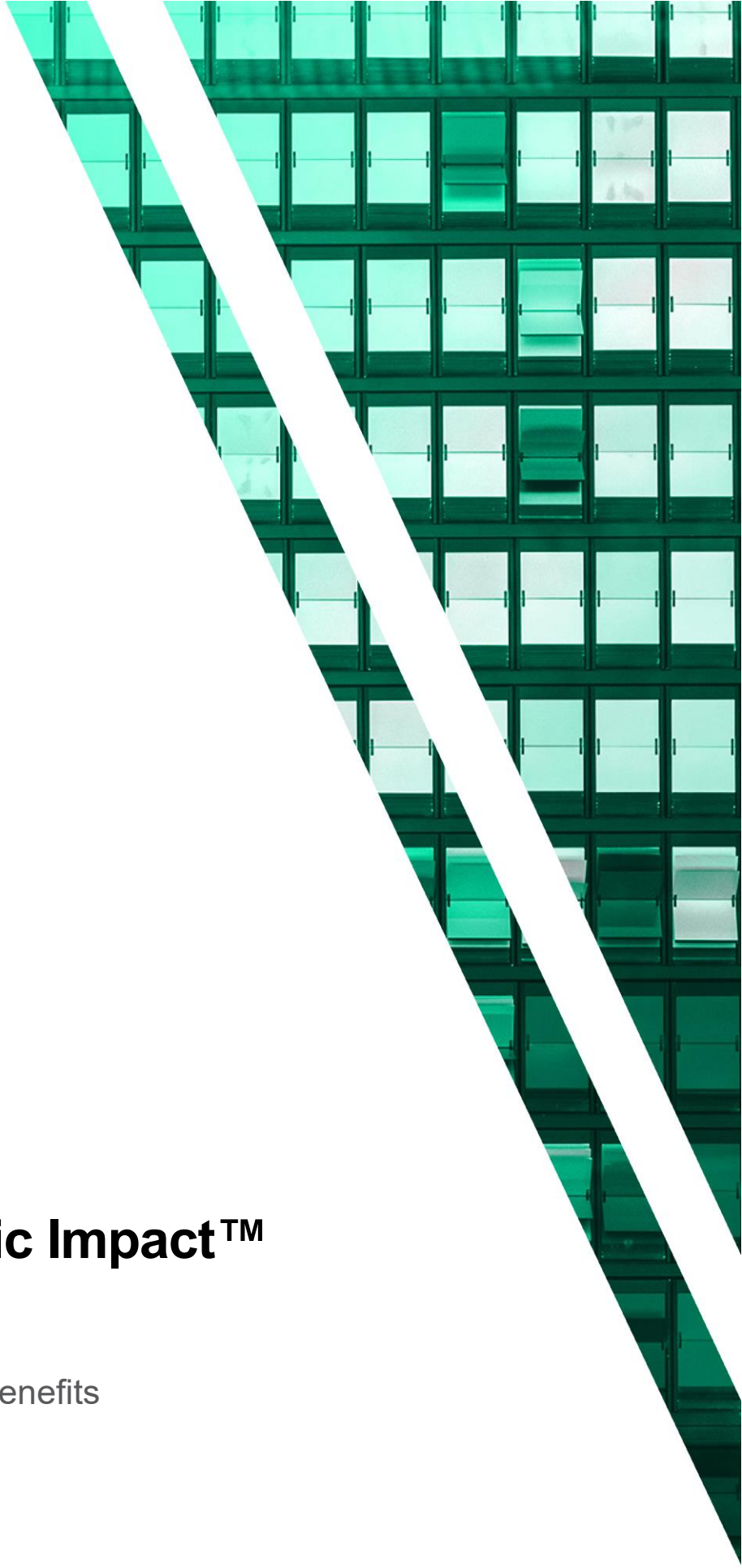

The Total Economic Impact™ Of Appian

Cost Savings And Business Benefits Enabled By Appian

MAY 2023

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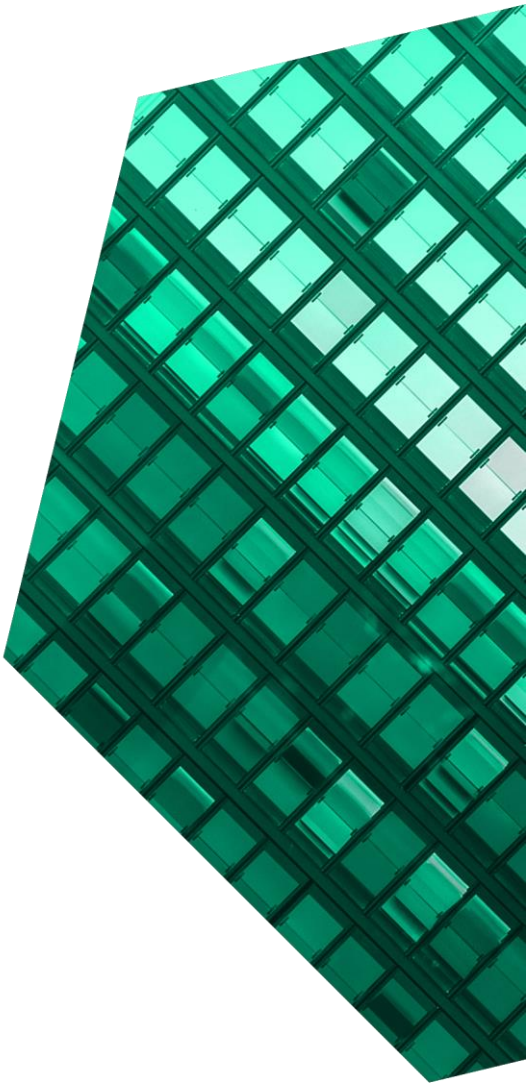

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Executive Summary

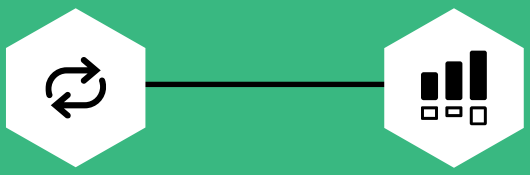
As businesses continue to adopt digital technologies, there is a growing demand for software solutions that streamline and automate operations. The need for process automation solutions is particularly acute for organizations in heavily regulated industries, as they must ensure that their operations are compliant and auditable. With Appian, businesses can create intricate, compliant workflows, saving them time and money on application development and other business processes.

Appian is a process automation platform provider that helps businesses build applications and automate workflows with low-code. Appian enables organizations to develop a diverse range of internal and external applications while also streamlining complex workflow automations to boost productivity and ensure compliance with regulatory requirements. This enables businesses to accelerate their digital transformation initiatives and improve operational efficiency.

Appian commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study that examines the economics of building and maintaining applications with Appian, including the value gained through legacy system displacement and the potential return on investment (ROI) enterprises may realize by deploying Appian.[1] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Appian on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four representatives with experience using Appian for process automation and low-code development. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single composite organization, which has 22,000 employees and an annual revenue of $14 billion.

KEY STATISTICS



Return on investment (ROI)
257%

Net present value (NPV)
$4.26M

Prior to using Appian, these interviewees noted their organizations required large teams of specialized and expensive software developers to build applications. Organizations were often constrained by the bandwidth of their developer teams. Some of the interviewees' organizations could automate certain tasks with other platforms but managed most of their workflows manually, creating inefficient, disorganized environments. Because most processes were manual, the interviewees' organizations — all of which operate in highly regulated industries — had to devote a significant amount of time to meeting compliance regulations and preparing for audits.

After the investment in Appian, the interviewees automated a wide variety of manual business processes, significantly improving workforce productivity. With Appian's low-code capabilities, application development became substantially easier and more efficient. Furthermore, the interviewees leveraged Appian to either supplement or replace

their existing applications, resulting in cost savings on legacy license fees and maintenance.

KEY FINDINGS

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

- **Development project labor savings.** Appian's low-code capabilities help the composite organization develop applications more efficiently, allowing it to build more applications with a smaller development team. The amount of time each developer spends building an application falls by 90% by Year 3; alternately expressed, this means active development time is 10 times faster. Additionally, the composite organization builds applications with smaller teams of less expensive employees rather than relying on costly software developers; the average fully burdened cost of a developer falls from $88 per hour to $43 per hour. In total, the development project labor savings amount to $2.8 million over the three-year period.

40% to 90%

Reduction in development project length with Appian

- **Time savings on manual processes.** The composite organization uses Appian to automate a wide variety of manual tasks, including the processing of customer forms, invoices, contracts, and customer returns. The amount of time the composite organization spends on these processes decreases by 95% after the investment in Appian, resulting in $671,000 in savings for the composite organization over the three-year period.
- **Reduced license and maintenance costs.** The composite organization overlays Appian on its existing application infrastructure, allowing it to lower its spending on legacy licenses and application maintenance by retiring some applications while automating or connecting the workflows of others. By Year 3 of its Appian investment, the organization's legacy license and maintenance costs have decreased by 50%, leading to cost savings of $2.3 million.
- **Time savings from improved audit preparation.** Appian provides the composite organization with a centralized platform for managing audit processes and automates compliance-related tasks, reducing the amount of time staff spends on preparing for audits. Before the investment in Appian, the composite organization devotes three weeks of FTE hours to preparing for each audit; with Appian, the organization only needs to devote 6 FTE hours to audit preparation. The more efficient compliance process is worth $139,100 to the composite organization over the three-year period.

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

- **Improved security.** Appian provides the composite organization robust access controls, enabling the organization to restrict access to sensitive data and ensure that only authorized users have access.
- **Increased collaboration between different departments.** Appian's centralized platform helps different departments in the composite organization access the same data and project information, eliminating silos and improving communication across different teams.

- **Ease of use.** The Appian Platform is user-friendly and intuitive for the composite organization. Appian's low-code approach requires minimal coding experience, which makes it accessible to a wider range of users and easier to train new users.
- **Access to thought leadership programs.** Appian invites customers to thought leadership programs, which can help customers keep up with market trends, connect with other industry players, and learn about new Appian capabilities and opportunities.

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

- **$705,000 in ongoing developer labor costs.** The composite organization has three internal FTEs devoted to developing and automating processes with Appian.
- **$679,000 in ongoing licensing, infrastructure, and professional services costs.** Appian charges licensing and infrastructure costs based on the number of users. The composite organization also incurs professional services costs with Appian for some external integrations, though they mostly rely on their own IT department.
- **$274,000 in implementation and management costs.** During the deployment process, the composite organization incurs internal labor costs for team members managing the implementation and training new users. The composite organization also has two employees devoting a portion of their time to managing the Appian Platform on an ongoing basis. Other organizations may instead opt to pay Appian a fee for them to handle this labor.

The representative interviews and financial analysis found that a composite organization experiences benefits of $5.92M over three years versus costs of $1.66M, adding up to a net present value (NPV) of $4.26M and an ROI of 257%.

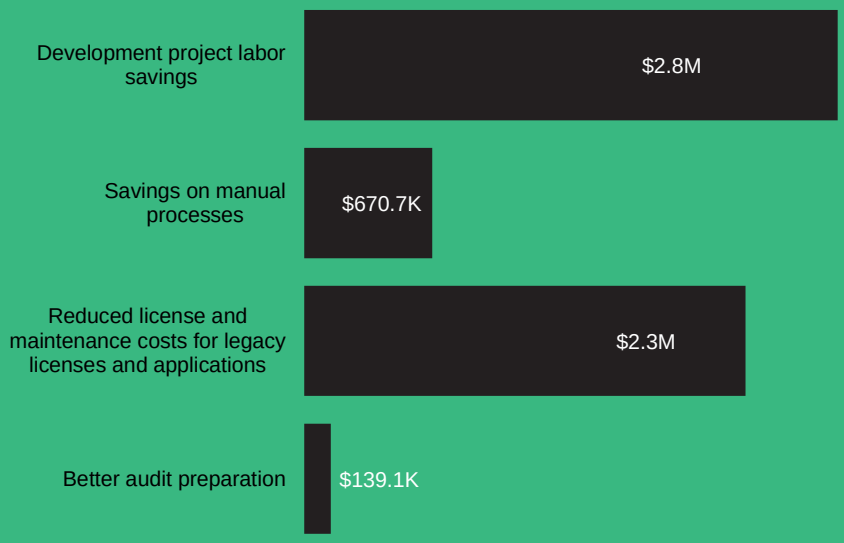
ROI
257%

BENEFITS PV
$5.92M

NPV
$4.26M

PAYBACK
<6 months

Benefits (Three-Year)



“The business now understands the capabilities that Appian can bring and now they’re asking for more. … It’s a completely different paradigm as to the speed of change.”

— Head of retail banking technology, financial services

TEI FRAMEWORK AND METHODOLOGY

From the information provided in the interviews, Forrester constructed a Total Economic Impact™ framework for those organizations considering an investment in Appian.

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 Appian can have on an organization.

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Appian 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 Appian.

Appian 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.

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

The Appian Customer Journey

Drivers leading to the Appian investment

Interviews

Role	Industry	Region	Employees
Head of change management	Financial services	UK	60,000
Head of retail banking technology	Financial services	US	8,000
Senior manager of process automation	Renewable energy operations	US and EMEA	12,000
Shared services director	Industrial manufacturing	US and EMEA	36,000

KEY CHALLENGES

Before adopting Appian, the interviewees' organizations largely lacked process automation solutions. Rote tasks were done manually with legacy applications requiring significant time and effort to utilize. The development of new solutions required weeks to months of active effort with full teams.

The interviewees noted how their organizations struggled with common challenges, including:

- **Inefficient, manual workflows of routine tasks.** Whether the interviewees' organizations were truly starting from scratch on automation before Appian or had already tried to automate some processes, all the interviewees expressed that far too much time and effort was spent on manual effort for tasks that could be automated. The head of retail banking technology for one of the financial services organizations broke down the time and effort spent on tasks that should be handled automatically: "It was insane. … People would push a cart full of paper documents and individually drop them off at people's desks, manually noting who got what. Then, they would manually key in all the data from contracts into a spreadsheet, then manually key that into another application."
- **Difficulty maintaining legacy applications.** In addition to manual processes and workflows taking valuable time, interviewees told Forrester that they struggled with workflows around legacy applications. The head of retail banking technology at a financial services organization stated, "We purchased the [Appian] platform with a specific eye on a set of several applications that we needed to replace and sunset."
- **Slow, expensive development of applications.** Several of the interviewees told Forrester that application development at their organizations — whether internal or external — was a long

> **"Appian is the best product for our use case in terms of its user interface, its low-code automation capabilities, its management of the data fabric, and the underlying structure of how we were going to organize our data and application architecture."**
>
> *Head of change management, financial services*

process that required expensive, highly trained personnel. These issues were exacerbated due to labor shortages. The senior manager of process automation for the renewable energy operations company explained that "at some point, you hit a wall where there's so much more time spent on the overhead of managing a process than there is spent on actually getting the work done."

"Outdated technology was impacting our revenue because we were slow to change to market needs and we were so inefficient."

Head of retail banking technology, financial services

- **Difficulty in preparing for audits and managing compliance.** Many of the interviewees worked in industries with significant compliance requirements and had to spend significant time and effort to prepare for and pass audits. The renewable energy interviewee told Forrester that their company "missed a key obligation, and the organization incurred a seven-figure fine as a result." The shared services director for the industrial manufacturing organization stated, "A workflow tool would be another way to ensure compliance to our SOPs [(standard operating procedures)."

SOLUTION REQUIREMENTS/INVESTMENT OBJECTIVES

The interviewees' organizations searched for a solution that could:

- Improve operational efficiency.
- Automate redundant tasks.
- Decrease license and FTE costs.
- Centralize their applications on a single platform.
- Make audit and compliance processes easier in the future.

COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected by Appian. The composite organization is representative of the four interviewees, 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 composite organization is worth $14 billion and is based primarily in the US and EMEA with 22,000 total employees. It develops several applications per year, for both internal and external use. Its legacy license and maintenance costs for older services and applications totals $3 million per year.

Key Assumptions

- **$14 billion in annual revenue**
- **Based in the US and EMEA**
- **22,000 total employees**
- **$3M in legacy license and maintenance costs for applications and services**

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	Development project labor savings	$676,728	$1,056,888	$1,741,572	$3,475,188	$2,797,137
Btr	Savings on manual effort	$174,700	$262,049	$393,074	$829,823	$670,710
Ctr	Reduced license and maintenance costs for legacy licenses and applications	$594,000	$918,000	$1,350,000	$2,862,000	$2,312,953
Dtr	Better audit preparation	$55,931	$55,931	$55,931	$167,794	$139,093
	Total benefits (risk-adjusted)	$1,501,359	$2,292,898	$3,540,577	$7,334,804	$5,919,893

DEVELOPMENT PROJECT LABOR SAVINGS

Evidence and data. According to interviewees, the Appian Platform enabled their organizations to develop projects with significantly less effort, enabling them to complete more development projects with a smaller team. They also automated several processes within development projects, including change impact assessments. Furthermore, the interviewees noted that they could leverage less-expensive business developers instead of more specialized software developers, further reducing the cost of application development projects.

- The head of retail banking technology at a financial services organization explained how development efficiency has improved: “We pay dealers X percent for every loan that they give us. Previously, it was completely manual and they couldn’t do specials or promotions. Now, it’s all managed within the business and they can do specials and promotions at will and what that does is it increases the number of applications and revenue that we get from dealers because they send us more deals, because we give them more participation. That is all on the Appian Platform and it’s managed by the business.”
- A senior manager of process automation at a renewable energy operations firm detailed how Appian process automation has changed project development: “It has helped us to streamline internal processes at the core of our business. [We] are transforming processes that are at the heart of the development of new projects. What sets us apart is our ability to develop new projects.”
- The head of retail banking technology at a financial services organization described how Appian enabled them to develop projects with relatively inexpensive staff: “We took people who either weren’t developers before or were developers in only one coding language and they’re coming up to speed within a couple of weeks. We’ve brought on multiple college interns and trained them, and within a couple of weeks, they’re able to start contributing to the team.”

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

- The composite organization uses Appian to develop six projects that are already planned in Year 1 of the investment, nine projects in Year 2, and 14 projects in Year 3.

- Before investing in Appian, eight developers were required for each project; after the investment, only three developers are required per project.
- The amount of time each developer spends on a development project decreases by 40% in Year 1, 60% in Year 2, and 90% in Year 3.
- With Appian's low-code capabilities, the composite organization hires less-expensive business developers instead of relying on costly software developers to build applications. The average fully burdened cost of a developer falls from $88 per hour to $43 per hour after the investment in Appian.
- While the composite organization develops more net-new projects than those mentioned, Forrester is only able to quantify the cost savings of prior projects.

Risks. The development project labor savings will vary depending on:

- The number of development projects pursued annually.
- The degree to which Appian can automate development processes or save time with low-code development.
- The fully burdened hourly rate of impacted employees.
- The ability of employees to productively recapture time savings.

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 $2.8 million.

"Developers roll that product into production two weeks earlier than they would have done originally, and they free up that resource capacity to pick another piece of work off the back and start to work on it."

Head of change management, financial services

Development Project Labor Savings					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
A1	Number of development projects impacted by Appian per year	Composite	6	9	14
A2	Prior developers required per development project	Interviews	8	8	8
A3	Hours of development work per project per developer	Interviews	200	200	200
A4	Prior hourly fully burdened developer salary	TEI standard	$88	$88	$88
A5	Subtotal: Total cost of development labor prior to Appian	A1*A2*A3*A4	$844,800	$1,267,200	$1,971,200
A6	Reduction in per developer development project hours of work due to DPA	Interviews	40%	60%	90%
A7	Hours of development work per project per developer with Appian	A3*(1-A6)	120	80	20
A8	Developers required per development project with Appian	Interviews	3	3	3
A9	Hourly fully burdened low-code developer salary	TEI standard	$43	$43	$43
A10	Subtotal: Total cost of development labor with Appian	A1*A7*A8*A9	$92,880	$92,880	$36,120
At	Development project labor savings	A5-A10	$751,920	$1,174,320	$1,935,080
	Risk adjustment	↓10%			
Atr	Development project labor savings (risk-adjusted)		$676,728	$1,056,888	$1,741,572
	Three-year total: $3,475,188			**Three-year present value: $2,797,137**	

SAVINGS ON MANUAL EFFORT

Evidence and data. Prior to the investment in Appian, interviewees noted that many of their organizations' employees devoted a significant amount of time to manual tasks, particularly around the processing of customer forms, such as invoices, contracts, and returns. The interviewees reported that Appian enabled them to automate many of the tasks and workflows associated with these processes, leading to significant time savings.

- The shared services director at an industrial manufacturing firm described how Appian sped up the processing of customer requests and made their organization more flexible: "We are processing requests all day long, so the shorter the cycle time is, the better, and we wouldn't be successful without having a powerful platform like Appian. From a short-term perspective, it helps us get the job done effectively. From a more strategic standpoint, it allows for other initiatives such as automation and process mining, which wouldn't be possible without Appian." They went on to add: "We can have our folks focus on the more analytical, complex activities and have the kind of transactional easy stuff being done by technology."
- The interviewees noted that Appian helped employees track the status of customer forms, making the processing of documents more efficient. The head of retail banking technology at a financial services firm described how Appian has streamlined the process: "There is going to be a huge amount of time savings from an organizational standpoint. Not just on the email

aspect of it, but on knowing where things are in the process. You don't have to email somebody else asking them for a status of what's going on because you can just pull it up in Appian and you can see that it's pending review."

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

- The composite organization automates 40,000 tasks with Appian in Year 1, followed by 60,000 in Year 2 and 90,000 in Year 3.
- On average, each task took employees 7 minutes to complete prior to the investment in Appian.
- With Appian, the composite organization reduces the amount of employee time spent on these tasks by 95%.
- The employees responsible for these manual processes have an average fully burdened hourly wage of $41.

Risks. The improvement in employee efficiency from process automation will vary depending on:

- The number of customer forms and manual processes automated with Appian.
- The amount of time devoted to each task before the investment in Appian.
- How much of a manual task or workflow Appian is able to automate.
- The average fully burdened hourly wage of the employees responsible for these tasks.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $670,700.

Savings On Manual Effort

Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Manual forms and processes impacted by Appian per year	Composite	40,000	60,000	90,000
B2	Time required per form or manual process prior to Appian (hours)	Interviews	0.125	0.125	0.125
B3	Time savings with Appian	Interviews	95%	95%	95%
B4	Hourly fully burdened clerical FTE salary	TEI standard	$41	$41	$41
Bt	Savings on manual effort	B1*B2*B3*B4	$194,111	$291,166	$436,749
	Risk adjustment	↓10%			
Btr	Savings on manual effort (risk-adjusted)		$174,700	$262,049	$393,074
	Three-year total: $829,823			**Three-year present value: $670,710**	

REDUCED LICENSE AND MAINTENANCE COSTS FOR LEGACY LICENSES AND APPLICATIONS

Evidence and data. Interviewees noted that they used Appian to supplement or replace their legacy software applications, reducing their license and application costs. Leveraging Appian enabled them to consolidate workflows that involve multiple applications, lessening the number of licenses they needed to provision and allowing them to decommission some applications entirely.

Some interviewees also shared that they used Appian to modernize their legacy applications, enabling them to avoid a costly replacement process. The head of retail banking technology at a financial services firm detailed how their organization overlayed Appian onto their existing environment: "We layered Appian on top of our existing legacy originations platform. We built a modern UI and new capabilities but we still interact with that legacy platform without the end users knowing. That's a big lift to the organization because you can give them new capabilities but at the same time avoid a huge rip and replace process."

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

- The composite organization spends $3 million annually on legacy application licenses and maintenance.
- Appian enables the composite organization to reduce its application and maintenance costs by 22% in Year 1, 34% in Year 2, and 50% in Year 3.

Risks. Factors that could impact this benefit for an organization include:

- Legacy license and application costs.
- The types of applications in the legacy environment and the extent to which they can be decommissioned.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $2.3 million.

Cost reduction in fees and maintenance with Appian

22% to 50%

Reduced License And Maintenance Costs For Legacy Licenses And Applications

Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	Costs for licensing and maintaining legacy licenses and apps	Composite	$3,000,000	$3,000,000	$3,000,000
C2	Cost reduction with Appian	Interviews	22%	34%	50%
Ct	Reduced license and maintenance costs for legacy licenses and applications	C1*C2	$660,000	$1,020,000	$1,500,000
	Risk adjustment	↓10%			
Ctr	Reduced license and maintenance costs for legacy licenses and applications (risk-adjusted)		$594,000	$918,000	$1,350,000
	Three-year total: $2,862,000			**Three-year present value: $2,312,953**	

BETTER AUDIT PREPARATION

Evidence and data. Before the investment in Appian, interviewees shared that preparing for an audit was a lengthy and labor-intensive process. With Appian, the interviewees' organizations created compliant workflows, ensuring that their processes automatically met regulatory requirements. Appian also provided the interviewees with a centralized platform for managing audit processes, further reducing the amount of time needed to prepare for audits.

- The shared services director at an industrial manufacturing firm noted how Appian made the audit process easier: "We tell the auditors that we have Appian as the workflow tool, and we do one or two demos. By the time we complete the second demo, they look at the processes and don't ask more questions. Before, they would conduct interviews and take samples from all processes."
- The head of retail banking technology at a financial services firm described how Appian helped the organization centralize compliance information: "We have a very consistent way to answer audits at the Appian level. … All the data is in one place; all the applications are in one place. It's easy to decipher and communicate what the logic was behind decisions. A lot of the audits come in and say: 'Well, how was this determined? How was this calculated?' And it's quite easy within Appian to display that."

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

- The composite organization is audited eight times per year.
- Prior to the investment in Appian, the organization devoted three weeks of FTE time to preparing for each audit. With Appian, the organization requires only 6 hours to prepare for an audit.

> **"Everything related to having the process in a workflow that we didn't have before helped a lot from that compliance standpoint."**
>
> *Shared services director, industrial manufacturing*

- The employees responsible for managing compliance have a blended, fully burdened weekly salary of $2,500.

Risks. Factors that could impact this benefit for an organization include:

- The number of audits the organization experiences per year.
- The amount of FTE time required to prepare for an audit.
- The fully burdened weekly salary of employees responsible for compliance-related tasks.

Results. To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV of $139,100.

Better Audit Preparation					
Ref.	**Metric**	**Source**	**Year 1**	**Year 2**	**Year 3**
D1	FTE labor time required to prepare for audit (weeks)	Interviews	3	3	3
D2	Audits per year	Interviews	8	8	8
D3	FTE labor time required per audit with Appian (weeks)	Interviews	0.15	0.15	0.15
D4	Weekly fully burdened audit FTE salary	TEI standard	$2,500	$2,500	$2,500
Dt	Better audit preparation	(D1*D2*D4)-(D3*D2*D4)	$58,875	$58,875	$58,875
	Risk adjustment	↓5%			
Dtr	Better audit preparation (risk-adjusted)		$55,931	$55,931	$55,931
	Three-year total: $167,794			**Three-year present value: $139,093**	

UNQUANTIFIED BENEFITS

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

- **Improved security.** Interviewees noted that Appian provided a range of security features, such as role-based access control and database encryption, that strengthened their security environments. The head of retail banking technology at a financial services firm described the improvement in security: “It’s a more secure platform. You don’t have customer data floating around in spreadsheets or system databases. It’s not being passed around through email and the fact is that we have better control.”
- **Increased collaboration between different departments.** Interviewees reported that using Appian enabled different teams within their organizations to collaborate more closely than they did previously. Appian’s unified platform for discovering, automating, and optimizing business applications allowed different departments to work on the same platform and share data and insights in real time. Interviewees also reported that several of Appian’s collaboration features, such as task assignments and notifications, improved communication between different teams. The head of retail banking technology at a financial services firm detailed the improvements in cross-department collaboration: “Now, we’re creating business lines that talk together more and create more consistent customer experience and employee experience all because we have more of a capability within the platform.”
- **Ease of use.** Interviewees shared that Appian’s user-friendly interface reduced the learning curve for new users and quickly made them adept at navigating the platform. The shared services director at an industrial manufacturing firm noted how easy Appian is to use: “From a user standpoint, we almost see Appian as those mobile apps where you don’t need to read any manual guidelines. You just start using it right away. It’s easy to use, it’s very intuitive, and that’s a big difference when I compare it to other solutions.”

  The senior manager of process automation for a renewable energy firm told Forrester: “[Appian] is like an Iron Man suit for people with good analytical skills. Anybody who can unpack a complex Excel formula with relative ease can do this job.”

- **Access to thought leadership programs.** Investing in Appian gave the interviewees access to Appian's thought leadership sessions, which provided the organizations with insights from industry experts, networking opportunities, and information on the latest Appian features and use cases. The head of change management at a financial services firm praised the leadership events: "I went to an Appian thought leadership session and I came away going, 'Oh my goodness, there's opportunities for our organization here I haven't even considered.'" They went on to add: "I think that's been a huge benefit for us. I think it's only their size and scale that's really made that possible. We would never have got that from a smaller vendor."

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement Appian and later realize additional uses and business opportunities, including improved revenue and growth from faster time to market and more frequent releases. While interviewees were only able to quantify the near-term cost savings on their development teams with process automation and low-code development for existing projects, they were interested in the possibilities of how their businesses could change with more and faster development and quicker time to market. Several expressed their confidence that Appian would allow their organizations to rapidly scale up development and releases far beyond their initial usage.

The head of retail banking technology at a financial services organization noted: "[Appian] is a differentiator for us because we can respond to market conditions much more quickly."

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

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	Effort required to automate processes with Appian	$0	$283,500	$283,500	$283,500	$850,500	$705,023
Ftr	Ongoing costs of Appian	$0	$273,000	$273,000	$273,000	$819,000	$678,911
Gtr	Implementation and management costs	$117,180	$63,000	$63,000	$63,000	$306,180	$273,852
	Total costs (risk-adjusted)	$117,180	$619,500	$619,500	$619,500	$1,975,680	$1,657,786

EFFORT REQUIRED TO AUTOMATE PROCESSES WITH APPIAN

Evidence and data. Interviewees told Forrester that in order to realize the benefits of process automation with Appian, they had to dedicate a few low-code developers. These teams of low-code developers were small and worked full-time on automating processes and workflows as well as supplementing workflows around legacy applications.

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

- Three low-code FTEs work full-time using Appian to automate processes and workflows.
- The blended, fully loaded annual salary for these FTEs is $90,000.

Risks. Factors that could impact the size of this cost for organizations include:

- The number of low-code FTEs required to achieve benefits with Appian.
- The fully loaded annual salary of each FTE.

Results. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of $705,000.

Effort Required To Automate Processes With Appian						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
E1	Number of FTEs automating processes with Appian	Interviews	0	3	3	3
E2	Annual fully loaded low-code developer salary	Assumption	$0	$90,000	$90,000	$90,000
Et	Effort required to automate processes with Appian	E1*E2	$0	$270,000	$270,000	$270,000
	Risk adjustment	↑5%				
Etr	Effort required to automate processes with Appian (risk-adjusted)		$0	$283,500	$283,500	$283,500
Three-year total: $850,500			**Three-year present value: $705,023**			

ONGOING COSTS OF APPIAN

Evidence and data. Interviewees described a few ongoing costs their organization incurred to use Appian:

- All interviewees paid a license fee to Appian on an annual basis.
- Several of the interviewees had miscellaneous infrastructure support or other recurring costs, but they described these as a small fraction of the overall license cost. This cost varied depending on how much of an on-premises presence each organization had.
- Interviewees described varying professional service fees depending on how much of the management and implementation of Appian was handled internally or externally.

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

- The composite organization pays $200,000 per year in license fees to Appian.
- The composite organization pays an additional $10,000 per year for infrastructure costs relating to a few applications that must remain on-premises; however, the majority of Appian is deployed on the cloud.
- The composite organization mostly handles its implementation and management of Appian internally but pays $50,000 per year in professional service fees for the management of a few deployments it cannot handle on its own.

Risks. Factors that could impact the size of this cost for organizations include:

- The size of license fees to Appian.
- The total infrastructure costs paid to Appian.
- Professional services required for implementation and management of Appian.

Results. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of $679,000.

Ongoing Costs Of Appian

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
F1	Licensing costs	Interviews	$0	$200,000	$200,000	$200,000
F2	Infrastructure/other costs	F1*5%	$0	$10,000	$10,000	$10,000
F3	Professional services	Interviews	$0	$50,000	$50,000	$50,000
Ft	Ongoing costs of Appian	F1+F2+F3	$0	$260,000	$260,000	$260,000
	Risk adjustment	↑5%				
Ftr	Ongoing costs of Appian (risk-adjusted)		$0	$273,000	$273,000	$273,000
	Three-year total: $819,000			**Three-year present value: $678,911**		

IMPLEMENTATION AND MANAGEMENT COSTS

Evidence and data. Organizations provided detailed descriptions of the process of implementing and maintaining Appian:

- Interviewees said a small team working with Appian for a few weeks completed the initial implementation.
- Another few weeks was required for training the initial wave of low-code developers; training for new developers was quick and easy enough to incorporate into existing onboarding.
- Lastly, interviewees told Forrester that a few FTEs maintained their deployments of Appian by devoting a small amount of time year-round.

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

- A team of four spends six weeks to implement Appian.
- Initial developer training requires 15 low-code developers spending two weeks.
- Two maintenance-level FTEs spend 30% of their time each year maintaining the Appian Platform.
- Organizations may avoid internal effort by having Appian take on initial implementation and deployment. Pricing may vary. Contact Appian for additional details.

Risks. Factors that could impact the size of this cost for organizations include:

- The size of implementation, training, and maintenance teams.
- The salary of implementation, training, and maintenance teams.
- The amount of time required for implementation, training, and maintenance.
- The amount of implementation and maintenance handled internally or with Appian or professional services.

Results. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV of $274,000.

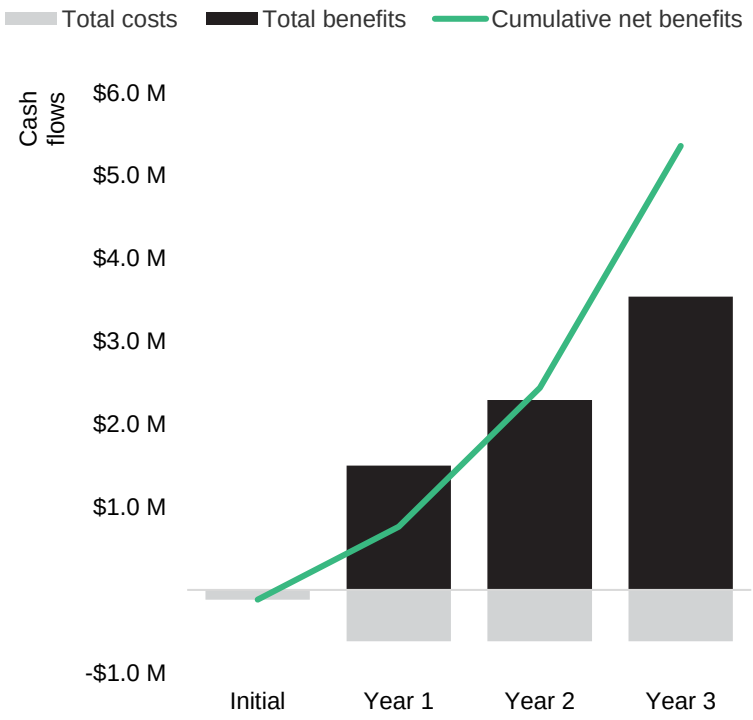
Implementation And Management Costs

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
G1	FTEs on implementation team	Interviews	4	0	0	0
G2	Weekly fully loaded team member salary	TEI standard	$2,500	$0	$0	$0
G3	Weeks required for implementation	Interviews	6	0	0	0
G4	Subtotal: Implementation labor costs	G1*G2*G3	$60,000	$0	$0	$0
G5	Initial FTEs trained	Interviews	15	0	0	0
G6	Weeks required for training	Interviews	2	0	0	0
G7	Weekly fully burdened low-code developer salary	A9*40 hours per week	$1,720	$0	$0	$0
G8	Subtotal: Initial training costs	G5*G6*G7	$51,600	$0	$0	$0
G9	FTEs required for ongoing platform management	Composite	0	2	2	2
G10	Annual fully burdened platform manager salary	Composite	$0	$100,000	$100,000	$100,000
G11	Percentage of time spent on management	Interviews	0%	30%	30%	30%
G12	Subtotal: Platform management cost	G9*G10*G11		$60,000	$60,000	$60,000
Gt	Implementation and management costs	G4+G8+G12	$111,600	$60,000	$60,000	$60,000
	Risk adjustment	↑5%				
Gtr	Implementation and management costs (risk-adjusted)		$117,180	$63,000	$63,000	$63,000
	Three-year total: $306,180			**Three-year present value: $273,852**		

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, NPV, and payback period for the composite organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

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

Cash Flow Analysis (Risk-Adjusted Estimates)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Total costs	($117,180)	($619,500)	($619,500)	($619,500)	($1,975,680)	($1,657,786)
Total benefits	$0	$1,501,359	$2,292,869	$3,540,577	$7,334,804	$5,919,893
Net benefits	($117,180)	$881,859	$1,673,369	$2,921,077	$5,359,124	$4,262,107
ROI						257%
Payback period						<6 months

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: Endnotes

[1] 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.

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