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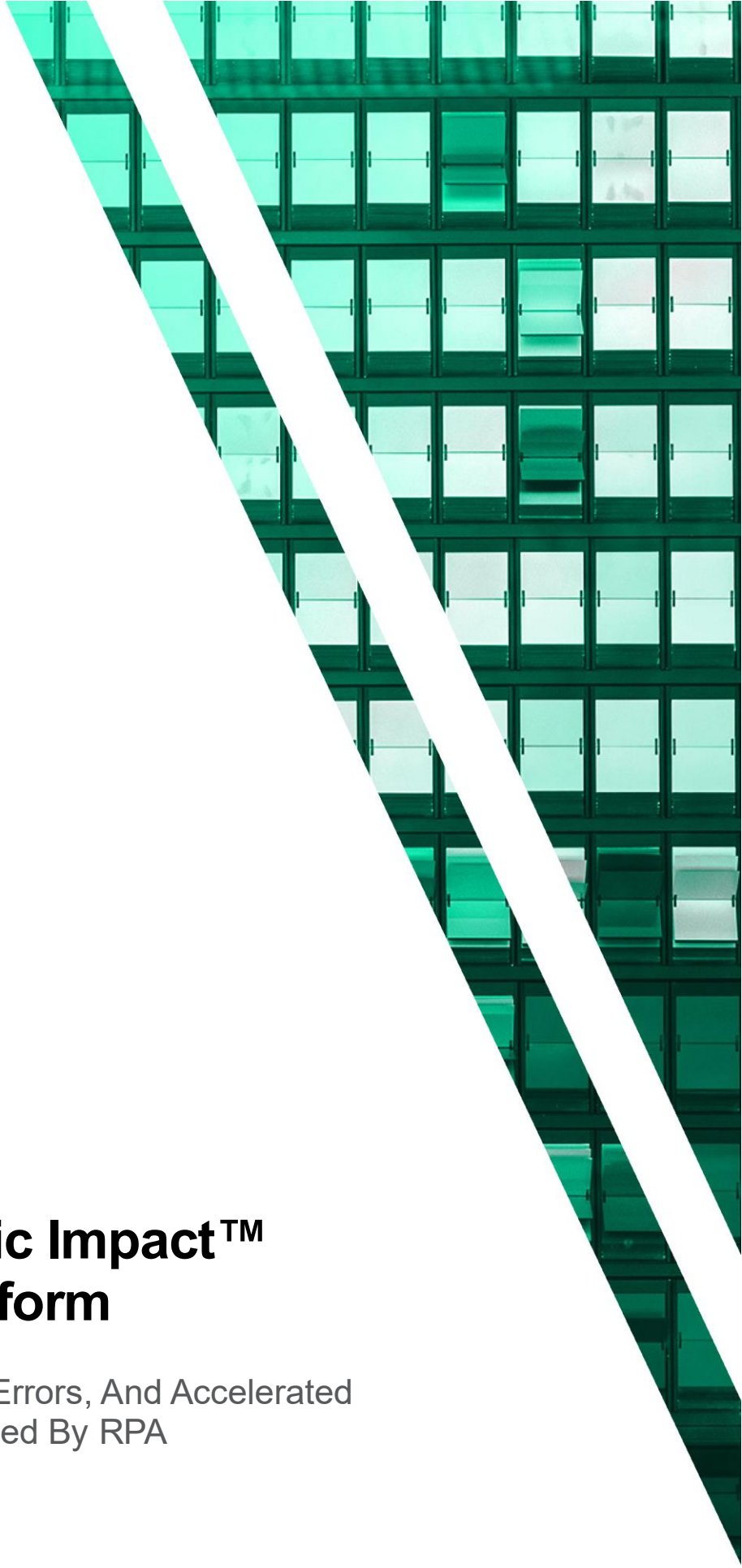

The Total Economic Impact™ Of The UiPath Platform

Productivity Gains, Reduced Errors, And Accelerated Data Migration Projects Enabled By RPA

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Table Of Contents

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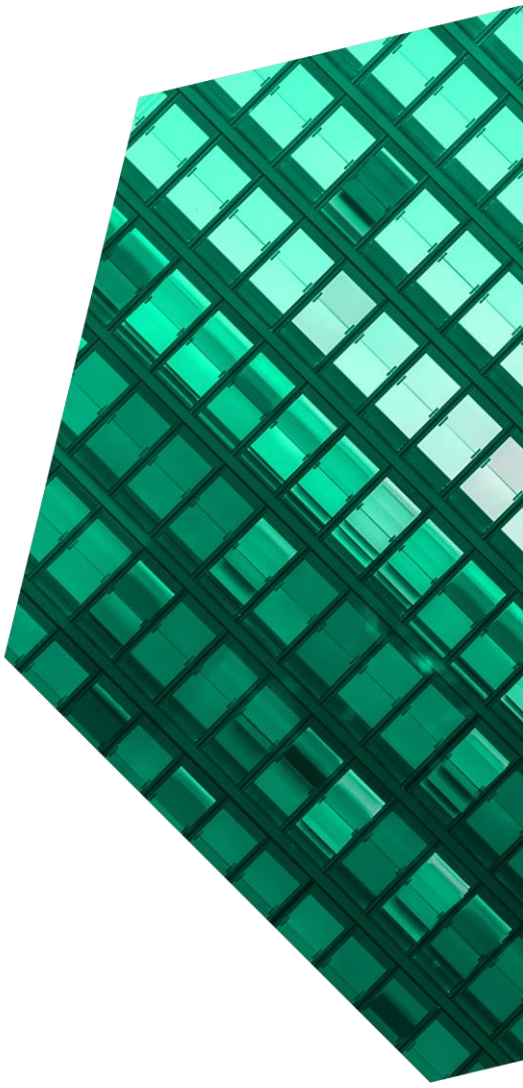


Executive Summary

Enterprises must constantly find ways to increase efficiency and reduce costs. Robotic process automation (RPA) allows an enterprise to build, implement and manage software robots that can undertake data-related human processes and tasks with the potential of faster, more consistent, and lower-cost operations. The UiPath Platform is designed to improve productivity, accelerate data migration projects, reduce errors, and support growth in the adoption of RPA across the organization.

The UiPath Platform includes a portfolio of products and services to enable enterprises to identify, build, test, and manage automations. Software automations, or bots, can be built and implemented to complete various tasks and processes faster, more efficiently, and more accurately than humans.

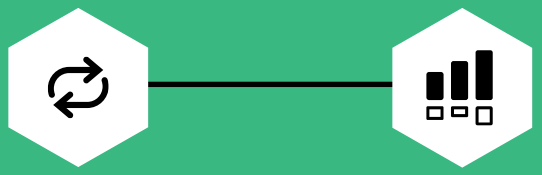
UiPath commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying the UiPath Platform.[1] The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of the automation platform on their organizations.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four decision-makers with experience using the UiPath Platform. For the purposes of this study, Forrester aggregated the interviewees' experiences and combined the results into a single composite organization.

Prior to using the UiPath Platform, these interviewees noted how their organizations were looking for ways to leverage digital technologies to become more efficient. Repetitive, data-based tasks undertaken manually are a suboptimal use of resources and tend to result in a high level of errors.

After the investment in the automation platform, the interviewees became more efficient: tasks and processes that were automated were completed in less time and at lower cost. Additional components of the platform were then implemented to continue to scale their capabilities and automate more processes. Key results from the investment include significant productivity improvements, reduced errors, and compliance-related issues, and faster data migrations.

KEY STATISTICS



Return on investment (ROI)	Net present value (NPV)
97%	**$5.94M**

> **"I can imagine that in the future we will have one person per team as the UiPath subject matter expert."**
>
> *Project manager, business services*

KEY FINDINGS

Quantified benefits. Risk-adjusted present value (PV) quantified benefits include:

- **Gains in productivity reaching 225,000 hours in Year 3.** The time savings delivered by

automation is the biggest benefit of the UiPath Platform, freeing up employee time typically spent on manual, repetitive, data-based tasks. In the case of the composite organization, 25,000 hours are saved in Year 1, 95,000 in Year 2, and 225,000 in Year 3. The present value of the risk-adjusted productivity benefit is over $7,703,000 for the composite organization. This includes a 50% productivity conversion, given that not all freed-up time necessarily goes back to productive use.

"In the first year we saved 26,000 hours; in the second it was nearly 150,000."

Finance systems director, financial software

- **Reductions in data migration project costs and time to value.** Automations can be used to support IT projects, typically where a lot of data is migrated from one system to another, instead of a manual approach. Not only does this reduce project costs, but it accelerates project completion, typically by 50% or more. The three-year, risk-adjusted present value of this benefit is more than $2,238,000 to the composite organization.
- **Reduction in errors and compliance issues.** By automating repetitive data processes and tasks, the UiPath Platform reduces human error. As a result, time is saved checking and correcting errors and compliance issues. Other compliance-related costs, such as fines, are also reduced. Such cost savings for the composite organization, presented as a three-year, risk-adjusted present value, come to almost $2,141,000.

"Our long-term goal is to scale the use of automation across the business to save 1 million hours."

Director of operational excellence and robotics, financial services

Unquantified benefits. Benefits that are not quantified for this study include:

- **Improved employee experience.** By reducing the amount of repetitive, manual tasks, employees have more time for higher-value, strategic projects. This, in turn, can improve employee-related metrics such as staff turnover, absenteeism, and discretionary effort.
- **Improved customer experience.** Some automations streamline customer-related processes, and so improve their overall experience. As a result, customer-related metrics, such as loyalty and average spend, improve.

Costs. Forrester identified three categories of costs:

- **Software license fees.** The software license fees are the annual subscription costs paid to UiPath for access to the various components of its automation platform. Over the three years, the risk-adjusted present value of these fees amounts to almost $1,394,000 for the composite organization.
- **Planning and implementation costs.** These comprise of UiPath's' implementation fees, third-party professional service support fees, and the internal resources required to support the planning, testing, and implementation of the tool. To the composite organization, this yields a three-year, risk-adjusted present value of $160,600.

- **Maintenance and training costs for the center of excellence (CoE) and citizen developers.** The biggest cost component is for the identification, development, and maintenance of the automations. This comprises of the employees in the CoE, as well as the time and effort of citizen developers. These costs over the three years amount to a risk-adjusted present value of about $4,586,000 to the composite organization.

The decision-maker interviews and financial analysis found that a composite organization experiences benefits of more than $12.08 million over three years versus costs of about $6.14 million, adding up to a net present value (NPV) of over $5.94 million and an ROI of 97%.

ROI
97%

BENEFITS PV
$12.08M

NPV
$5.94M

PAYBACK
<6 months

Benefits (Three-Year)

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 the UiPath Platform.

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 the UiPath Platform can have on an organization.

DUE DILIGENCE

Interviewed UiPath stakeholders and Forrester analysts to gather data relative to the UiPath Platform.

DECISION-MAKER INTERVIEWS

Interviewed four decision-makers at organizations using the UiPath Platform to obtain data with respect to costs, benefits, and risks.

COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics 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 decision-makers.

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 UiPath Platform Customer Journey

Drivers leading to the automation platform investment

Interviewed Decision-Makers

Interviewee	Industry	Global Revenue	Number Of Employees
Project manager	Business services	~$10.0 billion	33,200
Finance systems director	Financial software	~$8.0 billion	10,000
Infrastructure architect	Oil and gas	~$9.0 billion	9,700
Operations director	Financial services	~$2.3 billion	2,100

KEY CHALLENGES

Prior to investing into the UiPath Platform, each of the four decision-makers' organizations had not implemented automation but were looking for ways to modernize processes. In each case, digital transformation was an important focus and implementing automation supported this transition, either from the start or at a later stage.

> **"We identified RPA as an important tool to form part of our broader digital transformation efforts."**
>
> *Infrastructure architect, oil and gas*

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

- **Competitive and investor pressure to reduce costs.** Most organizations were continually looking for ways to reduce costs, improve efficiency, and complete tasks and processes in shorter time. Such pressures were particularly strong in areas of the business seen as cost centers, such as finance, customer service, and IT.
- **Inefficient methods for repetitive, time-consuming tasks and processes.** A lot of resources and time were being used for completing the same common manual processes, such as checking an address or number on a web page, back-office accounting tasks, data input, and settling invoices.
- **Time and effort dedicated to resolving errors.** Taking data from one place and manually inputting it somewhere else resulted in errors. Checking for and correcting mistakes took additional time and effort. Some errors inevitably led to more costly issues, including compliance-related issues.
- **Need for long-term automation scalability.** While decision-makers' organizations quickly grasped the benefits of automation, it was also important to ensure that a platform was chosen that supported long-term scalability and high adoption of RPA across the business.

> **"There was a lot of interest around RPA, and we wanted to improve employee skillsets."**
>
> *Finance systems director, financial software*

COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and a ROI analysis that illustrates the areas financially affected. The composite organization is representative of the four organizations that Forrester interviewed and 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 a global enterprise headquartered in North America. It has approximately 10,000 employees and $8 billion in annual revenue.

Deployment characteristics. The composite forms its initial CoE with four developers and one manager. With IT and management support, the UiPath Platform is implemented internally with an initial focus in the finance department. The initial implementation comprises of four Studio seats, 13 bots, and additional services like Orchestrator and other integrations. In Year 2, the citizen development program is initiated, with 50 citizen developers trained. In this same period, the CoE grows to 12 people. In Year 3, additional CoE resources are added, not only to develop new automations, but also to manage and maintain existing ones. The number of citizen developers increases to 350.

Key assumptions

- **$8 billion revenue**
- **10,000 employees**
- **$80,000 average salary**

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	Productivity gains	$712,500	$2,707,500	$6,412,500	$9,832,500	$7,703,137
Btr	Data migration cost savings and reduced time to value	$900,000	$900,000	$900,000	$2,700,000	$2,238,167
Ctr	Error reduction and compliance cost savings	$198,000	$752,400	$1,782,000	$2,732,400	$2,140,661
	Total benefits (risk-adjusted)	$1,810,500	$4,359,900	$9,094,500	$15,264,900	$12,081,965

PRODUCTIVITY GAINS

Evidence and data. The most important benefit for all the interviewed decision-makers was the productivity gains the UiPath Platform delivered. The number and size of the automations varies greatly depending on an organization's needs, from a task that saves an employee an hour a week to a process that affects all contact center staff.

Modeling and assumptions. In the case of the composite organization:

- In Year 1, four CoE developers create 13 automations, resulting in 25,000 hours saved.
- In Year 2, an additional 25 automations are built by the CoE, and the first citizen developers create 100 small automations. Altogether, this saves the composite organization 95,000 hours.

> **"In the first year we focused on several smaller automations. We saved 25,000 hours from high-volume low-value automations. Then in the second year we focused on two larger ones and saved 148,000 hours."**
>
> *Finance systems director, financial software*

> **"We initially targeted the biggest processes with the biggest efficiencies. It might have been better to start smaller in the interest of accelerating our learning."**
>
> *Infrastructure architect, oil and gas*

- In Year 3, the CoE is operating 92 automations in total, while the citizen developers build total reaches 750. Together, these save 225,000 hours.
- It is assumed that the average salary of the employee making these productivity gains is $80,000, which is equivalent to a fully loaded hourly rate of $60.

Risks. The key risks associated with this benefit are:

- The number and size of automations created varies from one organization to another.
- The impact of the automations also varies.
- The salary of the average employee impacted may also be lower.

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 about $7,703,000.

Productivity Gains

Ref.	Metric	Source	Year 1	Year 2	Year 3
A1	Number of hours saved	Interviews	25,000	95,000	225,000
A2	Average FTE hourly rate (fully loaded)	Composite	$60	$60	$60
A3	Productivity conversion factor	TEI Standard	50%	50%	50%
At	Productivity gains	A1*A2*A3	$750,000	$2,850,000	$6,750,000
	Risk adjustment	↓5%			
Atr	Productivity gains (risk-adjusted)		$712,500	$2,707,500	$6,412,500
	Three-year total: $9,832,500			**Three-year present value: $7,703,137**	

DATA MIGRATION COST SAVINGS AND REDUCED TIME TO VALUE

Evidence and data. Interviewees shared several examples whereby automation was used to facilitate data migration.

- The financial services organization built a UiPath Platform automation to take over the process of a legacy mainframe it was moving away from.
- The business services organization automated the process of migrating 1.6 million customer records from its legacy system. Not only was this done at much lower cost, but it was also completed in much less time, enabling the new system to go live sooner.

> **"To move the 1.6 million customer records to the new CRM system would have required 4 FTEs for a whole year. We used 10 bots, completed the task in three months, and saved $900,000."**
>
> *Project manager, business services*

Modeling and assumptions. To quantify this benefit for the composite organization:

- It is assumed that there is one data migration project requirement per year.
- Automating this task saves $500,000 on average.
- The data migration project would have taken a year, but it instead takes just six months.
- The average project value, or the value of the final application, is $10,000,000.

Risks. This benefit can be lower in other environments given that:

- The cost savings could be lower.
- The time saved could be less.
- The size of the projects could be smaller.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of over $2,238,000.

Data Migration Cost Savings And Reduced Time To Value

Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Number of data migration projects impacted	Interviews	1	1	1
B2	Average cost saving per data migration	Interviews	$500,000	$500,000	$500,000
B3	Average reduction in project time (months)	Interviews	6	6	6
B4	Average project value	Estimate	$10,000,000	$10,000,000	$10,000,000
B5	Value of reduced time to project completion (10% discount rate)	(B3/12)*10%*B4	$500,000	$500,000	$500,000
Bt	Data migration cost savings and reduced time to value	B2+B5	$1,000,000	$1,000,000	$1,000,000
	Risk adjustment	↓10%			
Btr	Data migration cost savings and reduced time to value (risk-adjusted)		$900,000	$900,000	$900,000
	Three-year total: $2,700,000		**Three-year present value: $2,238,167**		

ERROR REDUCTION AND COMPLIANCE COST SAVINGS

Evidence and data. The rate of errors and mistakes fell when manual processes were automated. This was particularly the case for repetitive tasks when focus can wane and human errors creep in.

- The financial services organization automated a process which checked that no payments were made to known terrorists. In addition to the hours saved in automating this process, which included regularly checking an updated online list, it reduced the number of false positives. This in turn saved additional time correcting the issue.

> **"Compliance and risk management have benefitted because of reduced errors."**
>
> *Product manager, RPA and legal, financial software*

The automation of data migrations also greatly reduced errors. The business services organization described one such project to migrate customer data records to a new system, which would have taken much longer and required more resources.

Modeling and assumptions. To quantity this benefit for the composite organization, it was assumed that:

- For every 20 hours saved, one error is avoided.
- The average error takes 1 hour to correct.
- For every 1,000 hours saved, one compliance issue is avoided.
- The average compliance event requires 10 days of effort to resolve.
- Ten percent of these avoided compliance events would have resulted in a regulatory fee of $10,000.

- Employees correcting errors and resolving compliance issues earn a salary of $80,000 on average.

Risks. There are a few risks which could result in a lower financial benefit:

- The number of errors was already much lower.
- The time to correct an error would be lower.
- The number of compliance events was already lower.
- The time to resolve a compliance event could be lower.
- The portion of compliance events that result in a regulatory fee could be lower.
- The average compliance fee could be lower.

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of almost $2,141,000.

Error Reduction And Compliance Cost Savings

Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	Number of errors avoided	Assumption	1,250	4,750	11,250
C2	Error correction time saving	Composite	1,250	4,750	11,250
C3	Average fully loaded hourly rate	Composite	$60	$60	$60
C4	Error avoidance cost savings		$75,000	$285,000	$675,000
C5	Number of compliance events avoided	Composite	25	95	225
C6	Number of days for 1 FTE to fix compliance event	Assumption	10	10	10
C7	Percentage of compliance events resulting in regulatory fee	Assumption	10%	10%	10%
C8	Average regulatory fee	Assumption	$10,000	$10,000	$10,000
C9	Compliance-related cost savings	(C5*C6*C3*8)+(C5*C7*C8)	$145,000	$551,000	$1,305,000
Ct	Error reduction and compliance cost savings	C4+C10	$220,000	$836,000	$1,980,000
	Risk adjustment	↓10%			
Ctr	Error reduction and compliance cost savings (risk-adjusted)		$198,000	$752,400	$1,782,000
	Three-year total: $2,732,400		**Three-year present value: $2,140,661**		

UNQUANTIFIED BENEFITS

Additional benefits that customers experienced but were not able to quantify include:

- **Improved employee experience.** By reducing the amount of repetitive, manual tasks, employees can spend more time on higher-value, strategic focus areas. A better employee experience leads to higher engagement, reduced turnover, reduced absenteeism, better customer experience, and increased discretionary effort. Furthermore, citizen development provides

employees with the opportunity to learn new skills and gain new experiences.

> **"The employee feedback is clear: they could never go back to doing those manual tasks."**
>
> *Finance systems director, financial software*

- **Improved customer experience.** Some automations improve customer-related processes. For instance, the financial services organization automated invoice payments, meaning customers and partners were paid faster and with less friction. Other automations make contact center agents more efficient, improving how they can support customers.

> **"With invoices paid faster, there has also been an improved customer experience."**
>
> *Operations director, financial services*

FLEXIBILITY

The value of flexibility is unique to each customer. In the case of the UiPath Platform, its modular approach offers additional opportunities in the future from an investment today. Additional components are available which help to identify and prioritize opportunities, reduce development costs, and address new and specialized areas of the business.

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**
Dtr	Software license fees	$0	$157,500	$367,500	$1,260,000	$1,785,000	$1,393,557
Etr	Planning and implementation costs	$160,600	$0	$0	$0	$160,600	$160,600
Ftr	Ongoing costs (CoE and citizen developers)	$0	$615,120	$1,576,080	$3,626,040	$5,817,240	$4,586,043
	Total costs (risk-adjusted)	$160,600	$772,620	$1,943,580	$4,886,040	$7,762,840	$6,140,200

SOFTWARE LICENSE FEES

Evidence and data. The software license fees included all the different components of the UiPath Platform. This included the desktop applications to create the automations for both for CoE developers and citizen developers, the bots, and other components of the platform.

Modeling and assumptions. In the case of the composite organization, it was assumed that in addition to some integrations and services costs, the license fee details are as follows:

- In Year 1, the licensing fees cover 13 bots, four Studio licenses, and Orchestrator.
- In Year 2, the fees cover 27 bots, 10 Studio licenses, 50 citizen developer licenses, and Test Suite.
- In Year 3, the number of bots grows to 104, 18 developers need Studio, and the organization has 350 citizen developer licensees; the Hub and Process Mining components are also included.

Risk. It is possible that other organizations will need more bots or other components to fit the UiPath Platform to their needs.

Results. To account for this risk, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of almost $1,394,000.

Software License Fees						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
D1	License fees	Interviews		$150,000	$350,000	$1,200,000
Dt	Software license fees	D1	$0	$150,000	$350,000	$1,200,000
	Risk adjustment	↑5%				
Dtr	Software license fees (risk-adjusted)		$0	$157,500	$367,500	$1,260,000
	Three-year total: $1,785,000			**Three-year present value: $1,393,557**		

PLANNING AND IMPLEMENTATION COSTS

Evidence and data. The interviewees shared that they had to allocate some resources and effort upfront to plan and implement the solution. This included:

- Third-party support.
- Planning, project management and change management resourcing. Included in this group was the time needed to identify and prioritize initial tasks and processes to be automated.
- IT involvement for implementation and security testing. It was also important to ensure that bots could be tracked and controlled.

> **"We wanted to ensure we were complying to security policies – bots need to be onboarded like contractors and have to have an id and password so they can be tracked and controlled. "**
>
> *Finance systems director, financial software*

Modeling and assumptions. In the case of the composite organization:

- It requires 50 days of third-party support, costing $1,000 per day.
- It needs eight FTEs, including two IT administrators, four developers, one project manager, and one manager. On average, each individual has to allocate 25 days to implementation.
- The average salary for these eight FTEs is $80,000.

Risks. The cost and effort required for planning and implementation could be higher because:

- Skillsets and capabilities are more limited.
- More third-party support is required.
- Average salary rates are higher.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding risk-adjusted total of $160,600.

Planning And Implementation Costs						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
E1	Third-party support	Composite	$50,000			
E2	Internal FTEs required for planning, implementation, and training	Composite	8			
E3	Average days per FTE for implementation	Interviews	25			
E4	Average fully loaded FTE for implementation (daily rate)	Composite	$480			
Et	Planning and implementation costs	E1+(E2*E3*E4)	$146,000	$0	$0	$0
	Risk adjustment	↑10%				
Etr	Planning and implementation costs (risk-adjusted)		$160,600	$0	$0	$0
	Three-year total: $160,600		**Three-year present value: $160,600**			

ONGOING COSTS (COE AND CITIZEN DEVELOPERS)

Evidence and data. The largest cost component is the time to develop and manage the automations in the UiPath Platform. This includes the training and development time for employees building, monitoring, and maintaining the automations.

- In all four of the customers interviewed, a center of excellence was created comprising mainly of dedicated developers and analysts, but also some administrators and managers to monitor and maintain bots and automations. In most cases there was only a single centralized CoE, but the oil and gas organization had created smaller CoEs in departments including finance and supply chain management.
- To continue scaling and building out automations, the customers started rolling out citizen development, whereby simpler versions of the development tool were used by employees interested to learn something new. These costs are also captured in this category.
- In some cases, the customers worked with third parties as there were limited resources with the skills to build automations. In all cases, however, the customers have strived to build internal capabilities.

> **"Today our central of excellence comprises of 25 FTEs, including junior and senior developers, architects, administrators and some IT support."**
>
> *Infrastructure Architect, oil and gas*

- The size and growth of the CoE also varied. Some of the customers started small to initially assess the technology and its fit. UiPath's flexible solution and free online training resources were attractive in this regard for some of the customers.

- Similarly, the degree to which citizen developers were involved varied. One organization had trained 500 employees in eight months and has a long-term goal to scale to one citizen developer in every 10 employees. Others are growing more slowly, conscious of cultural sensitivities, the strain it could put on the business, and the need to manage and monitor automations.

Modeling and assumptions. In the case of the composite organization:

- No third-party assistance will be required, as skills are developed in-house.
- The CoE starts with five FTEs in Year 1, 12 in Year 2, and 24 in Year 3.
- The average salary of these FTEs is $80,000, with a mix of junior and senior developers.
- It takes 10 full days of training for each new developer.
- The citizen development program starts in Year 2, with a total of 50 citizen developers trained. This grows to 350 in Year 3. The average salary is assumed to be the same as in the CoE.
- New citizen developers require an average of three days training.
- On average, two successful automations are created for every citizen developer in their first year, and one in their second year; each of these automations takes 6 hours.

Risks. There are three risks which could make these estimates higher for other organizations:

- The salary rate of the CoE and citizen developers could be higher.
- The training time can take longer.
- The citizen developer development time could be longer.

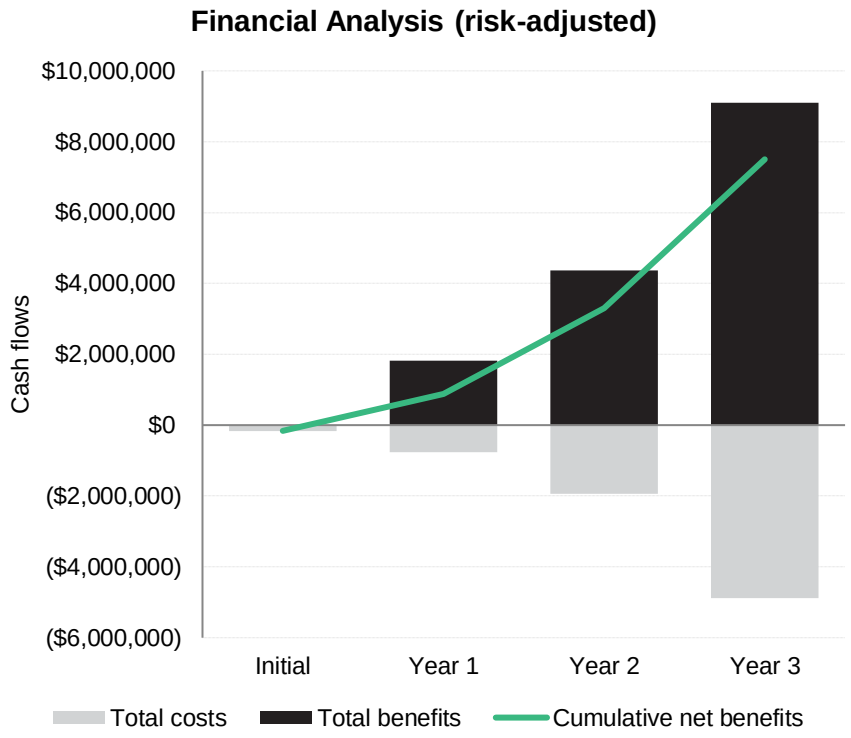
Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of more than $4,586,000.

Ongoing Costs (CoE And Citizen Developers)

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
F1	Number of dedicated FTEs for CoE	Composite		5	12	24
F2	- of which developers/ analysts			4	10	18
F3	Average fully loaded (+35%) CoE developer salary	Composite		$108,000	$108,000	$108,000
F4	Number of new developers	Assumption		4	6	8
F5	Training time for new developers (days)	Interviews		10	10	10
F6	Total CoE costs	(F1*F3)+(F4*F5*F3/5/45)	$0	$559,200	$1,324,800	$2,630,400
F7	Number of citizen developers	Composite		0	50	350
F8	Average fully loaded citizen developer daily rate	$80,000 salary rate*1.35/5/45		0	$480	$480
F9	Number of new citizen developers	F6(yrn+1)-F6(yrn)		0	50	300
F10	Training time for new citizen developers (days)	Interviews		0	3	3
F11	Development time for citizen developers (hours)	6 hours per automation, 2 automations in 1st year and 1 in 2nd year		0	600	3,900
F12	Total citizen developer costs	((F9*10)+(F11/8))*F8		$0	$108,000	$666,000
Ft	Ongoing costs (CoE and citizen developers)	F6+F12	$0	$559,200	$1,432,800	$3,296,400
	Risk adjustment	↑10%				
Ftr	Ongoing costs (CoE and citizen developers) (risk-adjusted)		$0	$615,120	$1,576,080	$3,626,040
	Three-year total: $5,817,240		**Three-year present value: $4,586,043**			

Financial Summary

CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS



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	($160,600)	($772,620)	($1,943,580)	($4,886,040)	($7,762,840)	($6,140,200)
Total benefits	$0	$1,810,500	$4,359,900	$9,094,500	$15,264,900	$12,081,965
Net benefits	($160,600)	$1,037,880	$2,416,320	$4,208,460	$7,502,060	$5,941,765
ROI						97%
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: Supplemental Material

Related Forrester Research

“The RPA Market Has Reached A Defining Moment,” Forrester Research, Inc., August 13, 2021

“Optimize Processes With Automation And Robotics,” Forrester Research, Inc., August 2, 2021

“The Forrester Wave: Robotic Process Automation, Q1 2021,” Forrester Research, Inc., March 15, 2021

Appendix C: 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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