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Impact™ Study
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Project Director:
Sarah Musto

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The Total Economic Impact™ of the Nintex Workflow Platform

Cost Savings and Business Benefits

FORRESTER®

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Executive Summary

Nintex commissioned Forrester Research to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) that enterprises may realize by deploying Nintex's workflow platform. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of using the Nintex workflow platform within their organizations.

“With Nintex, we now have the time to not only deliver workflows, but also to spend time analyzing the process and to make sure that we are delivering something in a smarter way.”

— *Workflow architect*

To better understand the benefits, costs, and risks associated with the implementation of the Nintex workflow platform, which we will refer to as the *Platform*, Forrester interviewed several customers with multiple years of experience using Nintex Workflow and Nintex Forms. These customers recognize the value inherent in automating processes. Their colleagues and customers are working both in offices and on mobile devices and are spread across many countries. Content necessary to collaborate and make business decisions is stored in many applications across these devices. They have some well-defined processes, but the steps leading up to these processes or to connect closely related processes are loosely defined and manual. With Nintex Workflow, customers can automate their processes and create workflows that connect their people, processes, and content. With Nintex Forms, Nintex provides an easy way to collect data from colleagues and customers within the workflow. Using Nintex Mobile, customers can extend these workflows to users who are on the go. With Nintex Connectors, customers can easily integrate cloud services and line-of-business applications into their workflows.

Prior to using the *Platform*, these customers were mostly relying on custom code to automate processes. However, it was difficult and time-consuming to build workflows, and many processes remained manual (e.g. paper-based, email, excel files) while a backlog of requests for automation grew. This left customers frustrated with process inefficiencies and the inability to automate faster. With the *Platform*, customers are able to automate processes in pace with demand, connect the right people and data in each process, and easily make changes to workflows as processes change. This results in increased productivity for end users and IT, reduced costs associated with automation, better collaboration, and higher quality of work.

NINTEX ENABLES INCREASED PRODUCTIVITY AND SIMPLER WORKFLOW MANAGEMENT

Our interviews with five existing customers and subsequent financial analysis found that a composite organization, which we will refer to as the *Organization*, based on these interviewed organizations experienced the risk-adjusted ROI¹, benefits, and costs shown in Figure 1. See Appendix A for a description of the *Organization*.

The analysis points to benefits of just over \$1.6 million over three years versus costs of \$580,000, adding up to a net present value (NPV) of \$1,020,045.

FIGURE 1
Financial Summary Showing Three-Year Risk-Adjusted Results

ROI:
176%

NPV:
\$1,020,000

Payback:
10.5 months

Productivity
per user:
▲ 8% to 15%

Source: Forrester Research, Inc.

- › **Benefits.** The *Organization* experienced the following risk-adjusted benefits that represent those experienced by the interviewed companies:
 - **Improved productivity for business end users results in benefits of \$622,000 in Year 3.** Business end users save on average 1 hour for complex processes² and 15 minutes for simple processes² automated with Nintex.
 - **Improved productivity for IT full-time equivalents (FTEs) provides \$77,000 to \$91,000 in benefits each year.** The *Organization* was able to automate select processes used by the IT organization, which saved frequent users of these processes an average of 3 hours per week.
 - **Avoided cost from using Nintex versus relying on custom code.** The *Organization* previously used custom code to automate processes. To replicate the automation achieved with the *Platform*, the *Organization* would have spent on average \$77,000 per year for internal resource time.
- › **Costs.** The *Organization* experienced the following risk-adjusted costs:
 - **Licensing fees for the Enterprise Edition of the Nintex workflow platform.** The *Organization* paid \$64,000 upfront for the Enterprise Edition and paid \$22,400 every year for software assurance and premium support.
 - **Professional services costs for assistance with initial workflows.** The *Organization* engaged with a partner for help in the development and deployment of the first six complex workflows. This resulted in a \$300,000 cost.
 - **Resource costs for an architect and support staff to manage Nintex.** One FTE is responsible for developing Nintex workflows for the *Organization*, and a team of three FTEs are responsible for implementation and ongoing support.
 - **Business end user resource cost for time spent on workflows.** Business end users spend 2 hours per simple workflow and 20 hours per complex workflow to assist in validation and testing. Three business specialists are trained to help develop simple workflows for end users.
 - **Training costs of \$5,000 upfront.** This is to provide training on the *Platform* for the team of three IT FTEs and the three business specialists

Disclosures

The reader should be aware of the following:

- › The study is commissioned by Nintex 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 report to determine the appropriateness of an investment in the Nintex workflow platform.
- › Nintex 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.
- › Nintex provided the customer names for the interviews but did not participate in the interviews.
- › All financial data is in US dollars.

TEI Framework and Methodology

INTRODUCTION

From the information provided in the interviews, Forrester has constructed a Total Economic Impact (TEI) framework for those organizations considering implementing the Nintex workflow platform. The objective of the framework is to identify the cost, benefit, flexibility, and risk factors that affect the investment decision.

APPROACH AND METHODOLOGY

Forrester took a multistep approach to evaluate the impact that Nintex can have on an organization (see Figure 2). Specifically, we:

- › Interviewed Nintex marketing, sales, leadership, and partners, along with Forrester analysts, to gather data relative to Nintex and the marketplace for workflow automation tools.
- › Interviewed five organizations currently using the *Platform* to obtain data with respect to costs, benefits, and risks.
- › Designed a composite organization based on characteristics of the interviewed organizations (see Appendix A).
- › Constructed a financial model representative of the interviews using the TEI methodology. The financial model is populated with the cost and benefit data obtained from the interviews as applied to the composite organization.
- › Risk-adjusted the financial model based on issues and concerns the interviewed organizations highlighted in interviews. Risk adjustment is a key part of the TEI methodology. While interviewed organizations provided cost and benefit estimates, some categories included a broad range of responses or had a number of outside forces that might have affected the results. For that reason, some cost and benefit totals have been risk-adjusted and are detailed in each relevant section.

Forrester employed four fundamental elements in modeling the TEI of the *Platform*: benefits, costs, flexibility, and risks.

Given the increasing sophistication that enterprises have regarding ROI analyses related to IT investments, Forrester's TEI methodology serves to provide a complete picture of the total economic impact of purchase decisions. Please see Appendix B for additional information on the TEI methodology.

FIGURE 2
TEI Approach



Source: Forrester Research, Inc.

Analysis

COMPOSITE ORGANIZATION

For this study, Forrester conducted a total of five interviews with representatives from the following companies, which are Nintex customers:

- › A global pharmaceutical company based in the United States with recent fiscal year revenue of over \$45 billion and over 70,000 employees. The organization has been using the Nintex workflow platform for three years, and it currently has developed more than 700 workflows.
- › A global manufacturing organization headquartered in Europe and operating in more than 100 countries. Its recent fiscal year revenue is over \$4 billion, and it currently has over 15,000 employees. The organization has used the Nintex workflow platform for three years and has developed 70 workflows.
- › A Southeast Asian branch of a global banking organization with approximately 4,000 employees. The organization has been using the Nintex workflow platform for one year and has developed 25 workflows.
- › A nonprofit organization operating in 120 offices in the United States with recent fiscal year revenue of \$650 million and 3,500 employees. The organization has used the Nintex workflow platform for two years and currently has developed 45 workflows.
- › A division of a global building technologies company headquartered in the United States with 120,000 employees. The organization has been using the Nintex workflow platform for one year and has developed about 50 workflows.

Based on the interviews, Forrester constructed a TEI framework, a composite organization, and an associated ROI analysis that illustrates the areas financially affected. The *Organization*, the composite organization that Forrester synthesized from these results, represents an organization with the following characteristics (see Appendix A for more detail):

- › Is a US-based global organization with \$700 million in revenue in the most recent fiscal year.
- › Has 3,800 employees worldwide.
- › Has a number of paper-based and manual processes and is standardized on a collaboration and content management system like SharePoint or Office 365.

After an extensive RFP and business case process evaluating multiple vendors, the *Organization* chose Nintex and began deployment:

- › The *Organization* purchased the Enterprise Edition of the Nintex workflow platform.
- › Implementation of the *Platform* took three FTEs one week to complete.
- › In the initial four months, as part of the proof of concept (POC), the *Organization* contracted with a partner to help build six of the most commonly used and complex workflows.³ The *Organization* also has one architect responsible for developing

“By replacing email-based processes with a small workflow, I have created a measurable process. I can now tell what point we’re at in the workflow, and take corrective action to improve efficiency.”

~Director of collaboration, knowledge management

Nintex workflows. This architect worked with the professional services staff as a form of training and also built an additional four simple workflows in this four-month period.

- › The *Organization* deployed these initial 10 workflows two years ago, and then relied on internal FTEs for ongoing workflow development and management of the *Platform*. By the end of Year 3, the *Organization* expects to have developed 60 workflows in total, 54 of which automate business processes and six of which automate IT processes. Of those 60 total workflows, 30% are automating complex processes and 70% are automating simple processes.

“We have several examples where our workflows need to talk to another system, and the fact that we can do that with Nintex is definitely a winning factor.”

~Workflow architect

INTERVIEW HIGHLIGHTS

The *Organization’s* experience prior to and after implementing the *Platform* is consistent with common themes revealed in the five customer interviews.

Situation

Before the *Organization* decided to invest in the *Platform*, it struggled with a number of challenges in process automation.

- › The *Organization* relied on custom code to develop workflows to automate processes. Due to the difficulty in developing with custom code, creating workflows was very time-consuming and inflexible to process changes upon completion. As the pipeline of requests for automation from the business grew, the relationship between IT and business users became increasingly strained.
- › Since previous process automation was so slow, most processes remained manual. Many processes were handled through the use of Excel spreadsheets, email, conference calls, and sending paper documents through an approval chain. This resulted in a lack of efficiency, issues with quality and consistency in processes, and lack of transparency into process completion.
- › The *Organization* made the decision to standardize on a content and collaboration platform like SharePoint across all of the business units for collaboration purposes and as a document repository. In looking for a new solution for workflow development, the *Organization* knew that it wanted a tool that could interact easily with its content and collaboration solution.

Solution

The *Organization* selected the Nintex workflow platform for its intuitive workflow designer, logic and flow, ease of use and implementation, ability to integrate with other systems within a workflow, and user interaction. Additionally, because the workflow designer works with SharePoint and/or Office 365, standardizing across the organization on Nintex for workflow development complements the *Organization’s* existing technology strategy.

Results

The *Organization* found that:

- › **Automating processes with the Nintex workflow platform has enabled productivity gains for the business and IT.** The most significant benefit of using the *Platform* has been improved process efficiencies due to workflows. Shortly after deploying the first set of workflows, users of those processes began to realize time savings. Over time, as user adoption grew and new workflows were introduced, these time savings compounded. Additionally, processes are conducted more

consistently, with fewer errors or delays; workflows ensure that every process that's started is compliant with regulations and doesn't result in litigation; and interactions with customers and other external parties can be completed more efficiently and in line with best practices. Aside from the monetary value of this time saved, nonquantifiable benefits that the *Organization* experienced because of these improvements include reduced fines and litigation costs, better engagement and collaboration with colleagues and external partners, higher customer satisfaction, and incremental revenue from completing projects more quickly.

- › **Developing workflows with a drag-and-drop designer speeds delivery of automation and opens the door for partnership with business users.** With the *Platform*, the *Organization* is able to reduce the amount of time it takes to develop workflows by an average of 60%. Previous frustrations around the pipeline of requests from the business to automate processes are significantly reduced. In addition, the *Organization* is able to create more flexibility for end users by providing them the option to build simpler workflows on their own. A three-person IT team acting as a Nintex Center of Excellence (CoE), including an architect to build Nintex workflows, has also trained three business end users who are more tech-savvy to act as business specialists in their regions. Business users who want to automate a simple process then have the ability to either engage with these business specialists to develop those workflows or engage with the architect. The CoE retains governance over those workflows created by the business specialists to ensure that they are developed in line with the *Organization's* guidelines and standards, and they continually reevaluate the balance between governance and self-service for the business to ensure an optimal pace of automation.

“We needed to create a better relationship between our users and IT. After deploying Nintex, we now work as partners. We work together to make sure we get things done at the right speed.”

~System consultant

- › **The ease of use of the *Platform* reduces the burden on IT.**

Not only is developing workflows much easier and less time-consuming, but using the *Platform* provides the agility to quickly make changes to workflows as business processes evolve. Additionally, due to this ease of use, the CoE has the opportunity to encourage more business end users to develop their own workflows, further reducing the queue and reliance on IT for automation.

BENEFITS

The *Organization* experienced a number of quantified benefits in this case study:

- › Improved business end user productivity.
- › Improved IT FTE productivity.
- › Cost avoidance for prior workflow development and management.

The *Organization* identified several additional benefits that were not able to be quantified. These include:

- › The ability to easily collect and share best practices and lessons learned across the organization. The results are higher quality of work, reduced errors, and improved engagement with colleagues and customers.
- › Better compliance with external regulations due to the structure and consistency provided through Nintex Forms and Nintex Workflow. This leads to reduced litigation costs and fines.
- › Incremental revenue from additional projects that were completed due to process efficiencies.

While the *Organization* was not able to isolate metrics associated with these benefits, Forrester encourages readers with access to these metrics to include them in their business case analyses.

+ Improved Business End User Productivity

The most significant benefit that the *Organization* realized is the productivity gains for end users due to process automation. In order to quantify this value, the *Organization* estimated the number of times workflows are used across the end user base each week. Workflows available to end users include all business workflows and select IT workflows (e.g., software provisioning). End users rely on two types of workflows:

- › Complex workflows: These workflows automate processes that require five to 50 or more steps, a number of different people or departments, and/or integrations with other systems. On average, end users will rely on a subset of the complex workflows available to them, interact with these workflows on average every other week, and expect to save about an hour each time as compared with the pre-automated process. With the *Platform*, up-to-date information is provided at each step, there is automatic routing through an approval chain, and there is visibility into the status of the workflow. Examples include the following processes, which bring together a number of collaborators during a more lengthy process:
 - Global approval processes for large capital expenditures that require estimates and inputs from various contributors and approval from several departments.
 - Employee onboarding and software provisioning for new hires and software provisioning for new laptops in the case of major software updates, laptop loss, or laptop replacement.
 - Interacting with external contributors/collaborators to collect submissions for inclusion in published documents.
 - Global collaboration between internal groups on major reports or published materials that require significant collaboration in data gathering, writing, editing, and publishing.
 - Account openings for new customers that require detailed data collection, data checks, and approvals from various departments.
- › Simple workflows: These workflows automate one- to five-step processes. End users will find a selection of these workflows relevant for their activities and will run these workflows on average once a week, saving approximately 15 minutes each time. Examples include the following processes, which were previously paper-based or email-based. Now, through workflows, these processes are completed much more quickly, consistently collect the correct data, route the information to the correct people, and automatically route the information to the correct systems upon completion if necessary:

- Time sheets for either full-time employees, contractor/professional services staff, or both.
- Minor expense approval processes, such as for travel reimbursement or office supplies.
- Vacation/leave requests to get approval for and track time spent out of office.
- Submission of best practices and lessons learned to a shared site and routing of relevant best practices to different user groups.

The most frequent users of workflows save 10% to 15% of their time on average each week. To recognize that not all time saved is used productively, a productivity factor of 50% is applied to these savings to indicate that 50% of that time is repurposed to complete additional tasks. Using an average fully loaded annual compensation of \$65,000, this results in \$348,000 in productivity savings in Year 1 up to \$622,000 in Year 3 on a risk-adjusted basis.

While the interviewed organizations provided similar averages for time savings per workflow type and overall time savings, each workflow's productivity contribution is variable, and it can be difficult to determine how often each workflow is used. Additionally, organizations can differ in user adoption of workflows, resources available to build and evangelize workflows, and end user average compensation. To compensate for this variability within and across organizations, this benefit was risk-adjusted and reduced by 30%. The risk-adjusted total benefit resulting from improved business end user productivity over the three years was \$1,468,086. See the section on Risks for more detail.

TABLE 1
Improved Business End User Productivity

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Number of complex workflows available to end users		6	11	17
A2	Average time savings per complex workflow per use (hours)		1	1	1
A3	Average number of complex workflows used per week (total)		350	525	700
A4	Number of simple workflows available to end users		11	24	38
A5	Average time savings per simple workflow per use (hours)		0.25	0.25	0.25
A6	Average number of simple workflows used per week (total)		1,050	1,400	1,575
A7	Total time savings per week (hours)	$(A2*A3)+(A5*A6)$	612.5	875	1,093.75
A8	Average annual fully loaded compensation		\$65,000	\$65,000	\$65,000
A9	Productivity capture		50%	50%	50%
At	Improved business end user productivity	$(A7*52)*(A8/2,080)*A9$	\$497,656	\$710,938	\$888,672

	Risk adjustment		↓ 30%	
Atr	Improved business end user productivity (risk-adjusted)	\$348,359	\$497,656	\$622,070

Source: Forrester Research, Inc.

★ Improved IT FTE Productivity

Similar to the business end users, IT FTEs are also experiencing productivity gains as a result of process automation. The *Organization* estimated the number of workflows used by IT FTEs each week, which include all IT workflows and a few business workflows (e.g., expense approval). They use the following types of workflows:

- **Complex workflows:** These automate processes that include several steps, several people, and integrations for other systems. Examples of complex IT workflows include the provisioning of software for new hires or after laptop repairs or refreshes, along with workflows that automate processes around major software updates like deploying new Windows versions to machines. IT FTEs save approximately 1 hour using workflows compared with previous processes.
- **Simple workflows:** These include simple IT processes such as requesting network use for users and also a few simple business processes such as expense submissions or leave approval requests. Most of these simple processes are used frequently, on average twice a week, and save about 15 minutes each time.

Overall, this enables an average of 7% to 8% of time saved each week for frequent workflow users. With a productivity factor of 50% and an average fully loaded annual compensation of \$91,000, this results in \$77,000 in productivity savings in Year 1 up to \$91,000 in Year 3 on a risk-adjusted basis.

While interviewed organizations provided similar averages for time saved per workflow, the number of workflows created to automate IT processes, the use of workflows by IT staff, and average IT compensation differed from organization to organization. To compensate, this benefit was risk-adjusted and reduced by 30%. The risk-adjusted total benefit resulting from improved IT FTE productivity over the three years was \$258,383. See the section on Risk for more detail.

TABLE 2
Improved IT FTE Productivity

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
B1	Number of complex workflows available to IT FTEs		1	2	2
B2	Time savings per complex workflow per use (hours)		1	1	1
B3	Average number of complex workflows used per week (total)		9	9	9
B4	Number of simple workflows available to IT FTEs		7	8	8
B5	Time savings per simple workflow per use (hours)		0.25	0.25	0.25
B6	Average number of simple workflows used per week (total)		350	420	420

B7	Total time savings per week (hours)	$(B2*B3)+(B5*B6)$	96.5	114	114
B8	Average annual fully loaded compensation		\$91,000	\$91,000	\$91,000
B9	Productivity capture		50%	50%	50%
Bt	Improved IT FTE productivity	$(B7*52)*(B8/2,080)*B9$	\$109,769	\$129,675	\$129,675
	Risk adjustment		↓ 30%		
Btr	Improved IT FTE productivity (risk-adjusted)		\$76,838	\$90,773	\$90,773

Source: Forrester Research, Inc.

★ Cost Avoidance For Prior Workflow Development And Management

The *Organization* indicated that another key benefit is the time savings in developing and managing workflows with the Nintex workflow platform versus its previous use of custom code. The *Organization* found that for the workflow architect, prior to using the *Platform*, it would take on average 200 hours to build a complex workflow and 10 hours to build a simple workflow. With the *Platform*, the architect saw an average 60% reduction in these times. Additionally, prior to using the *Platform*, the three FTEs who managed the workflows and overall environment and provided support spent an average of 4 hours per week on these activities. With the *Platform*, management time is reduced by 20%. In Table 3, the time it would have taken to replicate the automation achieved with the *Platform* using custom code is reflected as a cost avoidance benefit. Tables 6, 7, and 8 describe the current time needed for developing and managing workflows, and the resulting offset is the value of the time savings described above.

The interviewed organizations differed slightly on the time savings achieved in moving from custom code to the *Platform*, the number of FTEs responsible for automation, and the average compensation. To compensate, this benefit was risk-adjusted and reduced by 10%. The risk-adjusted total benefit resulting from this cost avoidance over the three years was \$231,998. See the section on Risks for more detail.

TABLE 3
Cost Avoidance For Prior Workflow Development And Management

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
C1	FTEs who build workflows		1	1	1
C2	Number of complex workflows built each year		6	6	6
C3	Previous time per complex workflow (hours)		200	200	200
C4	Number of simple workflows built each year		14	14	14
C5	Previous time per simple workflow (hours)		10	10	10
C6	FTEs who support workflows		3	3	3
C7	Previous time spent on workflow management per FTE (hours per		4	4	4

	week)				
C8	Total hours per year	$(C1 \cdot C2 \cdot C3) + (C1 \cdot C4 \cdot C5) + (C6 \cdot C7 \cdot 52)$	1,964	1,964	1,964
C9	Average annual fully loaded compensation		\$91,000	\$91,000	\$91,000
Ct	Cost avoidance for workflow development	$C8 \cdot (C9 / 2,080)$	\$85,925	\$85,925	\$85,925
	Risk adjustment		↓ 10%		
Ctr	Cost avoidance for workflow development (risk-adjusted)		\$77,333	\$77,333	\$77,333

Source: Forrester Research, Inc.

Total Benefits

Table 4 shows the total of all benefits across the three areas listed above, as well as present values (PVs) discounted at 10%. Over three years, the *Organization* expects risk-adjusted total benefits to be a PV of about \$1.6 million.

TABLE 4
Total Benefits (Risk-Adjusted)

Ref.	Benefit	Year 1	Year 2	Year 3	Total	Present Value
Atr	Improved business end user productivity	\$348,359	\$497,656	\$622,070	\$1,468,086	\$1,195,347
Btr	Improved IT FTE productivity	\$76,838	\$90,773	\$90,773	\$258,383	\$213,070
Ctr	Cost avoidance for prior workflow development and management	\$77,333	\$77,333	\$77,333	\$231,998	\$192,314
	Total benefits	\$502,530	\$665,761	\$790,175	\$1,958,467	\$1,600,732

Source: Forrester Research, Inc.

COSTS

The *Organization* experienced a number of costs associated with the Nintex workflow platform:

- › Nintex platform costs.
- › Professional services costs.
- › IT FTE resource costs.
- › Business end user resource costs.
- › Training costs.

These represent the mix of internal and external costs experienced by the *Organization* for initial planning, implementation, and ongoing maintenance associated with the solution.

Note: The mix of professional services costs, IT FTE resource costs, and business end user resource costs used for workflow development at the *Organization* represents the most common scenario of the interviewees. Due to high variability in this mix, readers are urged to consider their organization's goals and skill sets in their business case analyses.

📌 Nintex Platform Costs

The *Organization* purchased the Enterprise Edition of the Nintex workflow platform. The license cost for the *Platform* was \$64,000. The *Organization* also paid software assurance and premium support of \$22,400 per year.

TABLE 5
Nintex Platform Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
D1	Licensing costs		\$64,000			
D2	Software assurance and premium support costs			\$22,400	\$22,400	\$22,400
Dt	Nintex platform costs (not risk-adjusted)	D1+D2	\$64,000	\$22,400	\$22,400	\$22,400

Source: Forrester Research, Inc.

📌 Professional Services Costs

The *Organization* brought in a professional services team of three members to assist in building the initial set of complex workflows. These workflows automated highly visible and common processes (both for the business and IT) that included several steps, a number of interactions with colleagues and/or external parties, and integrations with other systems. While the internal IT team responsible for the *Platform* received official training, assisting the professional services team provided additional opportunity to learn how to build these more involved workflows. The three-person professional services team spent two weeks on each workflow at an hourly rate of \$160 per person. Following the deployment of these initial workflows, the internal IT team took over development of all workflows going forward.

Professional services costs are variable from organization to organization, considering some organizations rely more than others on professional services to assist with workflow development and implementation. Additionally, the size of the professional services staff and the hourly or contract rate can vary. To compensate, this cost was risk-adjusted up by 30%. The risk-adjusted cost for professional services for the *Organization* was \$299,520. See the section on Risks for more detail.

TABLE 6
Professional Services Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
E1	Number of professional services staff		3			
E2	Hours spent on implementation		0			
E3	Number of complex workflows built		6			
E4	Hours spent per complex workflow per staff member		80			
E5	Number of simple workflows built		0			
E6	Hours spent per simple workflow per staff member		4			
E7	Average hourly rate		\$160			
Et	Professional services costs	$((E1 \cdot E2) + (E1 \cdot E3 \cdot E4) + (E1 \cdot E5 \cdot E6)) \cdot E7$	\$230,400	\$0	\$0	\$0
	Risk adjustment		↑ 30%			
Etr	Professional services costs (risk-adjusted)		\$299,520	\$0	\$0	\$0

Source: Forrester Research, Inc.

IT FTE Resource Costs

The *Organization* relies on a team of three FTEs who make up the internal Nintex CoE as part of their responsibilities. This team includes one architect responsible for developing workflows and two support staff to assist in managing existing workflows and the *Platform*. These three FTEs spent one week implementing the Workflow and Forms products. They each spend three hours a week on ongoing management of the Nintex environment, support for business end users building their own workflows, and regular Nintex account management meetings. The architect spends on average 80 hours to build one complex workflow (multiple steps, integrations, interactions) and 4 hours to build one simple workflow (a few steps, no integrations). In the initial POC period, the architect spent 40 hours shadowing the professional services team for each complex workflow and built an additional four simple workflows. In years 1 through 3, the architect built all of the additional complex workflows and most of the simple workflows, aside from six simple workflows built in Year 2 and Year 3 by business end users.

IT FTE resource costs are variable from organization to organization, considering some organizations rely more than others on professional services, the skill set and availability in house can vary, and the average compensation for IT can differ. To compensate, this cost was risk-adjusted up by 30%. The risk-adjusted cost for IT resources over the three years was \$163,188. See the section on Risks for more detail.

TABLE 7
IT FTE Resource Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
F1	Total hours spent on implementation (FTEs)		120			
F2	Number of FTEs building workflows		1	1	1	1
F3	Number of complex workflows built by IT		6	0	6	6
F4	Time spent per FTE per complex workflow (hours)		40	80	80	80
F5	Number of simple workflows built by IT		4	10	11	11
F6	Time spent per FTE per simple workflow (hours)		4	4	4	4
F7	FTEs supporting Nintex			3	3	3
F8	Average hours per week per FTE on support			3	3	3
F9	Average annual fully loaded compensation		\$91,000	\$91,000	\$91,000	\$91,000
Ft	IT FTE resource costs	$(F1+(F2*F3*F4)+(F2*F5*F6)+(F7*F8*52))*(F9/2,080)$	\$16,450	\$22,225	\$43,400	\$43,400
	Risk adjustment		↑ 30%			
Ftr	IT FTE resource costs (risk-adjusted)		\$21,385	\$28,893	\$56,420	\$56,420

Source: Forrester Research, Inc.

Business End User Resource Costs

Professional services staff and IT resources that develop workflows require participation from business end users in defining and validating the requirements for each workflow and testing the workflows before deployment. For a simple workflow, this requires on average about 2 hours total from a select few end users close to that process. For a more complex workflow, this requires on average about 20 hours of total end user time. The *Organization* also enables the business to develop simple workflows on their own through the help of business specialists who are tech-savvy end users trained on the Nintex workflow platform and who spend a portion of their time assisting in automation. The *Organization* trained three business specialists located in different regions to work with end users to either build workflows or notify the Nintex CoE of new opportunities for automation. These business specialists developed three simple workflows each in years 2 and 3, spending approximately 24 hours to develop and test each workflow. They build workflows in a staging environment, which allows the CoE to quickly review the workflows prior to deploying them to ensure that they meet the standards set by the *Organization*.

Business end user resource costs are variable from organization to organization, considering some organizations require additional end user validation and testing. Some may make the *Platform* more self-service to enable additional end user creation of workflows, and average compensation for end users varies. To compensate, this cost was risk-adjusted up by

30%. The risk-adjusted cost for business end user resources over the three years was \$23,400. See the section on Risks for more detail.

TABLE 8
Business End User Resource Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
G1	Number complex workflows built by IT		6	0	6	6
G2	End user time per complex workflow (hours)		20	20	20	20
G3	Number simple workflows built by IT		4	10	11	11
G4	End user time per simple workflow (hours)		2	2	2	2
G5	Number simple workflows built by business specialists		0	0	3	3
G6	Hours spent per workflow		24	24	24	24
G7	Average annual fully-loaded compensation		\$65,000	\$65,000	\$65,000	\$65,000
Gt	Business end user resource costs	$((G1*G2)+(G3*G4)+(G5*G6))*(G7/2080)$	\$4,000	\$625	\$6,688	\$6,688
	Risk adjustment		↑ 30%			
Gtr	Business end user resource costs (Risk-Adjusted)		\$5,200	\$813	\$8,694	\$8,694

Source: Forrester Research, Inc.

☹ Training Costs

The *Organization* spent a minimal amount of time on training due to the intuitiveness and ease of use of the Nintex workflow platform. For the three-person Nintex CoE, each person spent three days in training for Workflow and one day for Forms. Training for the three business specialists was done internally, either through the CoE or via online resources provided by Nintex, including Nintex Connect. Since there was little variability across the interviewed organizations in the amount of time spent on training, there is no risk adjustment for this cost category. In total, training costs were slightly over \$5,000.

TABLE 9
Training Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
H1	IT FTEs managing Nintex		3			
H2	Hours spent in training per IT FTE		32			

H3	Business specialists who help with workflows	3				
H4	Hours spent in training per business specialist	10				
H5	Average IT annual fully loaded compensation	\$91,000				
H6	Average end user annual fully loaded compensation	\$65,000				
Ht	Training costs	\$5,138	\$0	\$0	\$0	\$0

Source: Forrester Research, Inc.

Total Costs

Table 10 shows the total of all costs as well as associated present values, discounted at 10%. Over three years, the *Organization* expects total costs to total a net present value of slightly more than \$560,000.

TABLE 10
Total Costs (Risk-Adjusted)

Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value
Dtr	Nintex platform costs	\$64,000	\$22,400	\$22,400	\$22,400	\$131,200	\$119,705
Etr	Professional services costs	\$299,520	\$0	\$0	\$0	\$299,520	\$299,520
Ftr	IT FTE resource costs	\$21,385	\$28,893	\$56,420	\$56,420	\$163,118	\$136,668
Gtr	Business end user resource costs	\$5,200	\$813	\$8,694	\$8,694	\$23,400	\$19,655
Htr	Training costs	\$5,138	\$0	\$0	\$0	\$5,138	\$5,138
	Total costs	\$395,243	\$52,105	\$87,514	\$87,514	\$622,375	\$580,686

Source: Forrester Research, Inc.

FLEXIBILITY

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for some future additional investment. This provides an organization with the “right” or the ability to engage in future initiatives but not the obligation to do so. There are multiple scenarios in which a customer might choose to implement the *Platform* and later realize additional uses and business opportunities. Flexibility would also be quantified when evaluated as part of a specific project (described in more detail in Appendix B).

The *Organization* plans to invest in Nintex Mobile within the next few years. This will not only extend workflows to mobile employees, improving internal collaboration and further increasing process efficiency, but it will also enable mobile

interactions with customers. Extending workflows to customers' mobile devices has the potential to improve engagement, enhance revenue, and increase customer satisfaction.

RISKS

Forrester defines two types of risk associated with this analysis: "implementation risk" and "impact risk." Implementation risk is the risk that a proposed investment in the Nintex workflow platform may deviate from the original or expected requirements, resulting in higher costs than anticipated. Impact risk refers to the risk that the business or technology needs of the organization may not be met by the investment in the *Platform*, resulting in lower overall total benefits. The greater the uncertainty, the wider the potential range of outcomes for cost and benefit estimates.

TABLE 11
Benefit And Cost Risk Adjustments

Benefits	Adjustment
Improved business end user productivity	↓ 30%
Improved IT FTE productivity	↓ 30%
Cost avoidance for prior workflow development and management	↓ 10%
Costs	Adjustment
Professional services costs	↑ 30%
IT FTE resource cost	↑ 30%
Business end user resource cost	↑ 30%

Source: Forrester Research, Inc.

Quantitatively capturing implementation risk and impact risk by directly adjusting the financial estimates results provides more meaningful and accurate estimates and a more accurate projection of the ROI. In general, risks affect costs by raising the original estimates, and they affect benefits by reducing the original estimates. The risk-adjusted numbers should be taken as "realistic" expectations since they represent the expected values considering risk.

The following impact risks that affect benefits are identified as part of the analysis:

- › Productivity benefits are often difficult to estimate within an organization and are also highly variable from organization to organization. The benefit categories included in this analysis represent the average productivity enhancement for the user base. Productivity is affected by user adoption of the technology, availability of and ability to provide workflows for common processes, user compensation, and ability to repurpose time saved for more productive work. These variables can be difficult to accurately estimate and often differ between organizations.
- › Time spent prior to using Nintex on automating processes using custom code differs from organization to organization.

The following implementation risk that affects costs is identified as part of this analysis:

- › Resource costs are highly variable from organization to organization based on the reliance on professional services, the skill set of internal FTEs, the involvement and skill set of business end users, and the average compensation for these roles.

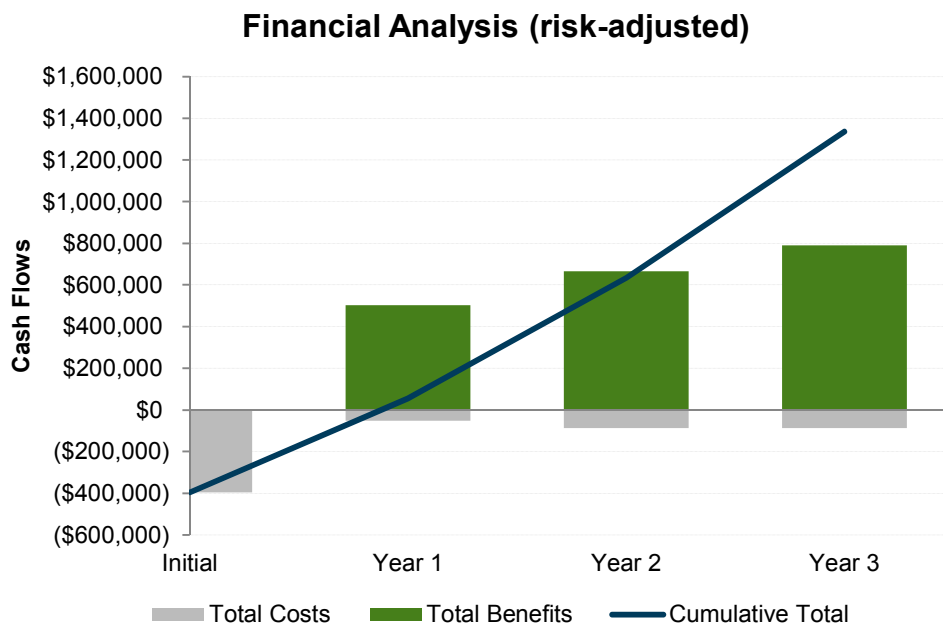
Table 11 shows the values used to adjust for risk and uncertainty in the cost and benefit estimates for the *Organization*. Readers are urged to apply their own risk ranges based on their own degree of confidence in the cost and benefit estimates.

Financial Summary

The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the *Organization's* investment in the Nintex workflow platform.

Table 12 below shows the risk-adjusted ROI, NPV, and payback period values. These values are determined by applying the risk-adjustment values from Table 11 in the Risks section to the unadjusted results in each relevant cost and benefit section.

FIGURE 3
Cash Flow Chart (Risk-Adjusted)



Source: Forrester Research, Inc.

TABLE 12
Cash Flow (Risk-Adjusted)

	Initial	Year 1	Year 2	Year 3	Total	Present Value
Costs	(\$395,243)	(\$52,105)	(\$87,514)	(\$87,514)	(\$622,375)	(\$580,686)
Benefits	\$0	\$502,530	\$665,761	\$790,175	\$1,958,467	\$1,600,732
Net benefits	(\$395,243)	\$450,425	\$578,248	\$702,662	\$1,336,092	\$1,020,045
ROI						176%
Payback period						10.5

Source: Forrester Research, Inc.

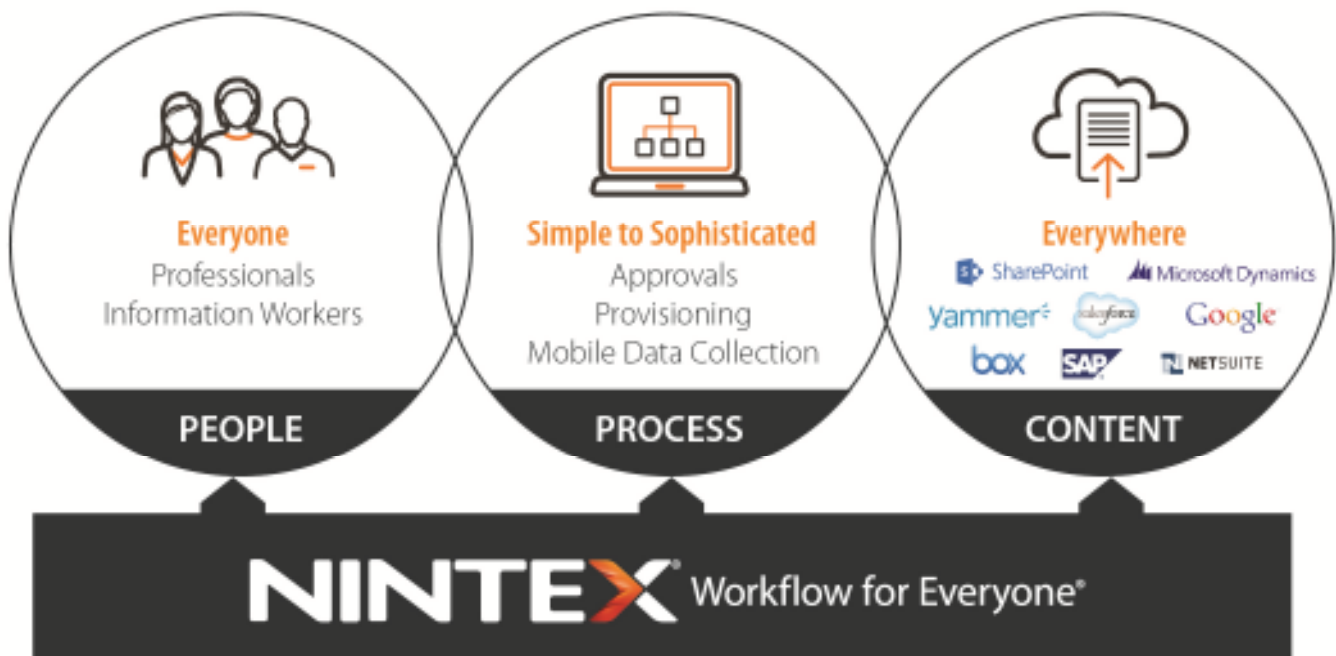
Nintex Workflow Platform: Overview

The following information is provided by Nintex. Forrester has not validated any claims and does not endorse Nintex or its offerings.

Nintex is a leading workflow company. It delivers innovative software and cloud services to help organizations automate everyday business processes quickly and easily.

More than 5,000 public and private organizations in 90 countries, including 200 of the Fortune 500, run millions of Nintex workflows daily. Its network of more than 1,000 reselling and service partners delivers integrated workflow solutions, from simple to complex, addressing needs of business users, developers, and IT professionals.

Whether working with simple workflows or complex processes that interconnect multiple systems, Nintex delivers workflow solutions that match its customers' needs and business vision. Built for today's most used content and collaboration environments, its scalable solutions enable you to automate more processes, increasing efficiency and producing replicable results. Both powerful and easy to use, the Nintex workflow platform delivers immediate results and return on investment, followed by rapid adoption across the enterprise.



Appendix A: Composite Organization Description

For this TEI study, Forrester has created a composite organization, the *Organization*, to illustrate the quantifiable benefits and costs of implementing the Nintex workflow platform. The *Organization* is intended to represent a global company with 3,800 employees and is based on characteristics of the interviewed customers.

The *Organization* had, prior to implementing the *Platform*, relied on custom code to automate some of the manual processes that were creating inefficiencies within the organization and reducing the overall quality of work. However, because automating with custom code was time-consuming and inflexible to business process changes, there was a large pipeline of requests that were unfulfilled, straining the relationship between IT and the business and leaving productivity gains on the table.

In purchasing the *Platform*, the *Organization* had the following objectives:

- › Automate and improve paper-based or manual (e.g., email-based, conference calls, excel spreadsheets) processes.
- › Enable more efficient collaboration within the organization and with customers.
- › Foster a better relationship between business end users and IT and keep pace with business demand to automate.
- › Provide cost savings in the development and management of workflows.

For the purpose of the analysis, Forrester assumes that the *Organization* has been using the *Platform* for one year. Following the one-week implementation, the IT FTEs responsible for Nintex worked with a partner to develop 10 initial workflows as a POC. Following this successful four-month pilot, these three FTEs formed the internal Nintex Center of Excellence, developed additional workflows and provided training to three business specialists, and oversaw the workflows those specialists created. While the initial 10 workflows were mostly complex processes, by the end of Year 3, of the 60 total workflows created, 90% were automating business processes, a majority of which were simpler in nature. The organization consistently added 20 workflows per year.

FRAMEWORK ASSUMPTIONS

Table 13 provides the model assumptions that Forrester used in this analysis.

The discount rate used in the PV and NPV calculations is 10%, and the time horizon used for the financial modeling is three years. Organizations typically use discount rates between 8% and 16% based on their current environment. Readers are urged to consult with their respective company's finance department to determine the most appropriate discount rate to use within their own organizations.

TABLE 13
Model Assumptions

Ref.	Metric	Calculation	Value
C1	Hours per week		40
C2	Weeks per year		52
C3	Hours per year (M-F, 9-5)		2,080
C4	Hours per year (24x7)		8,736

Source: Forrester Research, Inc.

Appendix B: Total Economic Impact™ Overview

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.

The TEI methodology consists of four components to evaluate investment value: benefits, costs, flexibility, and risks.

BENEFITS

Benefits represent the value delivered to the user organization — IT and/or business units — by the proposed product or project. Often, product or project justification exercises focus just on IT cost and cost reduction, leaving little room to analyze the effect of the technology on the entire organization. The TEI methodology and the resulting financial model place 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. Calculation of benefit estimates involves a clear dialogue with the user organization to understand the specific value that is created. In addition, Forrester also requires that there be a clear line of accountability established between the measurement and justification of benefit estimates after the project has been completed. This ensures that benefit estimates tie back directly to the bottom line.

COSTS

Costs represent the investment necessary to capture the value, or benefits, of the proposed project. IT or the business units may incur costs in the form of fully burdened labor, subcontractors, or materials. Costs consider all the investments and expenses necessary to deliver the proposed value. In addition, the cost category within TEI captures any incremental costs over the existing environment for ongoing costs associated with the solution. All costs must be tied to the benefits that are created.

FLEXIBILITY

Within the TEI methodology, direct benefits represent one part of the investment value. While direct benefits can typically be the primary way to justify a project, Forrester believes that organizations should be able to measure the strategic value of an investment. Flexibility represents the value that can be obtained for some future additional investment building on top of the initial investment already made. For instance, an investment in an enterprisewide upgrade of an office productivity suite can potentially increase standardization (to increase efficiency) and reduce licensing costs. However, an embedded collaboration feature may translate to greater worker productivity if activated. The collaboration can only be used with additional investment in training at some future point. However, having the ability to capture that benefit has a PV that can be estimated. The flexibility component of TEI captures that value.

RISKS

Risks measure the uncertainty of benefit and cost estimates contained within the investment. Uncertainty is measured in two ways: 1) the likelihood that the cost and benefit estimates will meet the original projections and 2) the likelihood that the estimates will be measured and tracked over time. TEI risk factors are based on a probability density function known as "triangular distribution" to the values entered. At a minimum, three values are calculated to estimate the risk factor around each cost and benefit.

Appendix C: Glossary

Discount rate: The interest rate used in cash flow analysis to take into account the time value of money. Companies set their own discount rate based on their business and investment environment. Forrester assumes a yearly discount rate of 10% for this analysis. Organizations typically use discount rates between 8% and 16% based on their current environment. Readers are urged to consult their respective organizations to determine the most appropriate discount rate to use in their own environment.

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.

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.

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.

Return on investment (ROI): A measure of a project's expected return in percentage terms. ROI is calculated by dividing net benefits (benefits minus costs) by costs.

Simple workflow: A workflow that automates a process that has a minimal number of steps (i.e., one to five) and previously was paper-based/email-centric or ad hoc.

Complex workflow: A workflow that automates a process that has a significant number of steps (i.e., five to 50 steps), requires a number of collaborators to complete, and/or involves integrations with other systems or cloud services.

A NOTE ON CASH FLOW TABLES

The following is a note on the cash flow tables used in this study (see the example table below). The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1. Those costs are not discounted. All other cash flows in years 1 through 3 are discounted using the discount rate (shown in the Framework Assumptions section) at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations are not calculated until 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.

TABLE [EXAMPLE]
Example Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
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Source: Forrester Research, Inc.

Appendix D: Supplemental Material

Related Forrester Research

“New Development Platforms Emerge For Customer-Facing Applications,” Forrester Research, Inc., June 9, 2014

Appendix E: Endnotes

¹ Forrester risk-adjusts the summary financial metrics to take into account the potential uncertainty of the cost and benefit estimates. For more information, see the section on Risks.

² For the purposes of this analysis, Forrester separated workflows into two buckets: simple workflows and complex workflows. Simple workflows automate processes that have a minimal number of steps (i.e., one to five steps) and previously were paper-based/email-centric or ad hoc. Complex workflows automate processes that have a significant number of steps (i.e., five to 50 steps), require a number of collaborators to complete, and involve integrations with other systems or cloud services.

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