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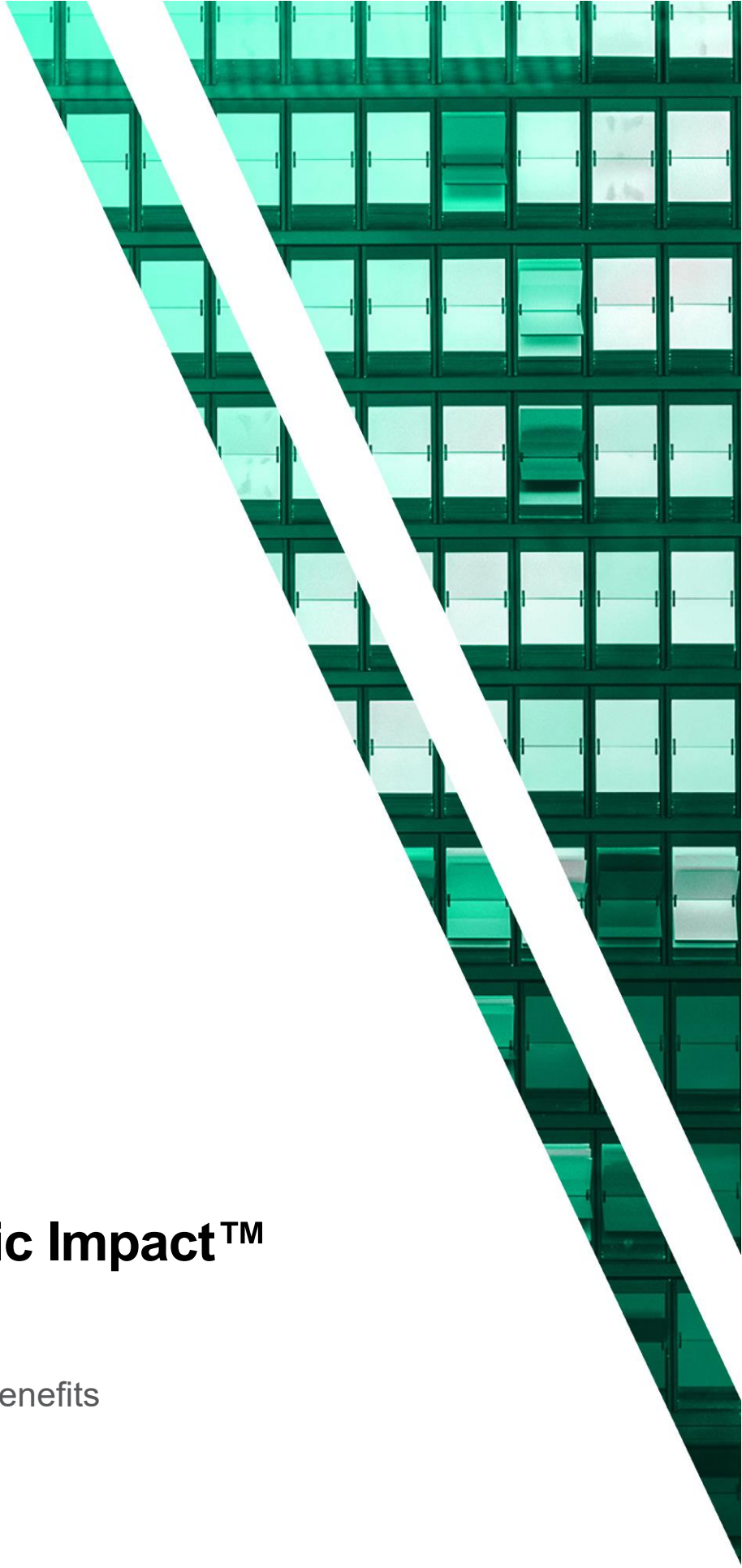

The Total Economic Impact™ Of HCL Domino

Cost Savings And Business Benefits Enabled By HCL Domino

NOVEMBER 2022

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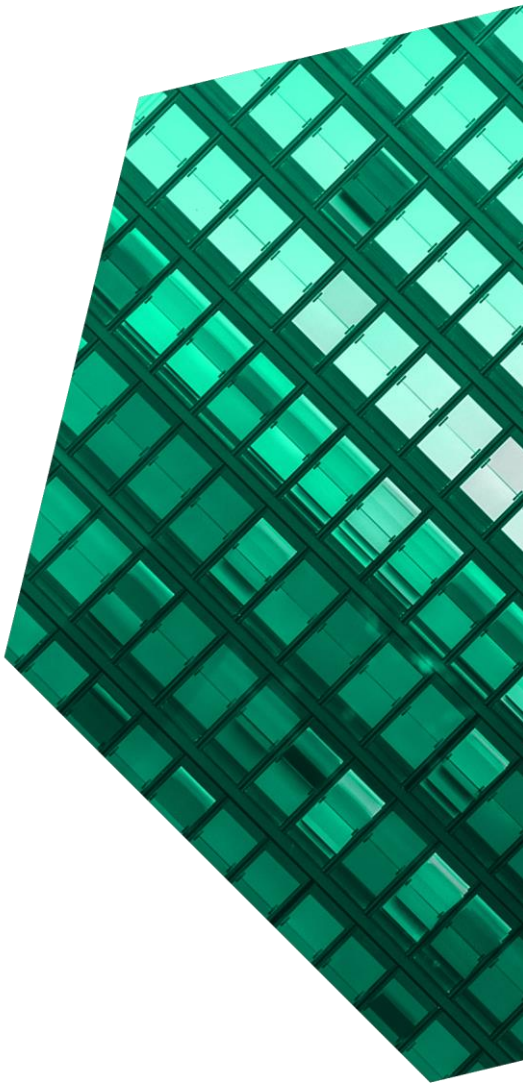


ABOUT FORRESTER CONSULTING

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

Executive Summary

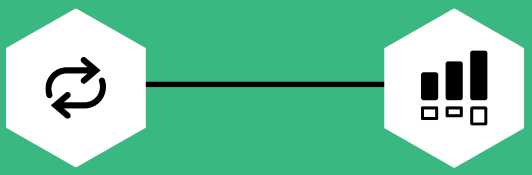
Modernizing applications are on the agenda for most enterprises as they struggle with technical debt and often turn to providers that offer enterprises short-term solutions. However, providers may deliver cookie-cutter solutions that do not meet the complete spectrum of their business needs, especially those with unique use cases requiring complex configurations and customization. Rapid application development (RAD) platforms offer custom coding and quick application development, and they support low-code development.

HCL Domino is an enterprise-grade application development platform. It supports pro code and low code for developers and citizen developers to create core business applications and enable workflow automation.

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

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four representatives with experience using HCL Domino. Forrester also surveyed 119 business and IT decision-makers responsible for their organization's IT modernization strategy in the US to highlight key demands and trends in modernization needs and challenges. For the purposes of this study,

KEY STATISTICS



Return on investment (ROI)
392%

Net present value (NPV)
$4.80M

Forrester aggregated the interviewees' experiences and combined the results into a single composite organization.

Survey respondents said application and infrastructure modernization topped the list of technology initiatives for their organizations in the US. Eighty-one percent said their organization has started modernizing its infrastructure and 61% said their organization has started to modernize its business applications. Eighty-nine percent said core modernization will involve modernizing or replacing existing business applications and 91% said it will involve exploring cloud-native solutions and low-code platforms. While an external vendor or service provider may provide short-term respite, it is not a long-term solution, and organizations face talent acquisition and technical debt challenges. Fifty-eight percent of respondents said it is costly or difficult to hire employees or contractors to manage legacy applications.

Improved application development efficiency

50%

Interviewees noted that prior to using HCL Domino, their organizations relied on manual, paper-based, or spreadsheet-based processes for their enterprise resource planning (ERP) including asset management, customer relationship management (CRM), human capital management (HCM), and finance needs. They were time-consuming and limited the organizations' productivity.

After the investment in HCL Domino, the interviewees' organizations experienced improved operational and application development efficiency. The organizations built their business-application needs around HCL Domino and realized there would not be a single alternative that could provide all the applications they needed.

KEY FINDINGS

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

- **Improved operational efficiency of $1.3 million.** Employees are required to perform tasks as part of their business-as-usual activities, and this can include invoice processing and inputting customer information data as part of their organization's CRM process. Before the composite organization used HCL Domino, these processes were manual or paper-based, which was time-consuming and weighed down productivity. With HCL Domino, the composite organization can build applications to digitize these processes. This reduces the time spent on processes and provides a system of records. Due to the large variance in use cases and variance in time saved, the composite saves a blended rate of 3.5 minutes per process. Over three years, the operational efficiency gains are worth more than $1.2 million to the composite organization.
- **Improved application development efficiency of 50%.** Interviewed decision-makers noted that HCL Domino has the ability to create highly customized applications to support their organizations' core business needs that are often unique to industry. Fifty-five percent of survey respondents said adding new digital capabilities to existing products and services is most important to modernizing their organization's business, and 73% said their organization aims to develop unique applications for its specific business needs with low code. With HCL Domino, the composite organization is able to create and customize applications according to its specific needs and more effectively than with packaged, out-of-the-box solutions. Over three years, the efficiency gain from improved application development is worth $255,200 to the composite organization.
- **Cost savings of $4.5 million compared to alternative solutions.** HCL Domino is a cost-effective solution that enables the composite organization to create applications in-house. The alternative of which would have been to engage as many as five different vendors to meet its business needs or replace HCL Domino. Over three years, the cost savings are worth $4.5 million to the composite organization.

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

- **Security.** HCL Domino features improved security and Active Directory integration. Employees do not need to memorize passwords and only need to maintain one password. Organizations are able to leverage security built into processes and forms in their Domino applications.
- **Improved employee well-being and regulatory adherence.** Sixty-six percent of survey respondents said their organization will see the greatest need for customized software to manage employee experience. They can create their own training applications that are unique and specific to their regulatory requirements. While this is

difficult to quantify, one decision-maker noted that it helped their organization meet safety regulations and guidelines set out by the Occupational Safety and Health Administration (OSHA).

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

- **License costs of $580,000 over three years.** HCL Domino follows a subscription-based cost model, and it can be deployed either on-premises or in the cloud. HCL Domino scales well in supporting varying numbers of users and typically only requires virtual servers. Physical servers will work as well but are not required. The composite organization deploys HCL Domino on-premises.
- **Implementation costs of $54,400.** Implementation of HCL Domino involves the developers of the composite organization, and they engage a professional service firm during deployment. Other one-time costs involved are training-related.
- **Ongoing application and platform development and management costs of $590,800 over three years.** The composite organization develops new applications on HCL Domino and, over time as this plateaus, it redeploys effort to make upgrades and adds features to existing applications. The platform also requires resourcing for management and maintenance.

The representative interviews and financial analysis found that a composite organization experiences benefits of $6.02 million over three years versus costs of $1.23 million, adding up to a net present value (NPV) of $4.80 million and an ROI of 392%.

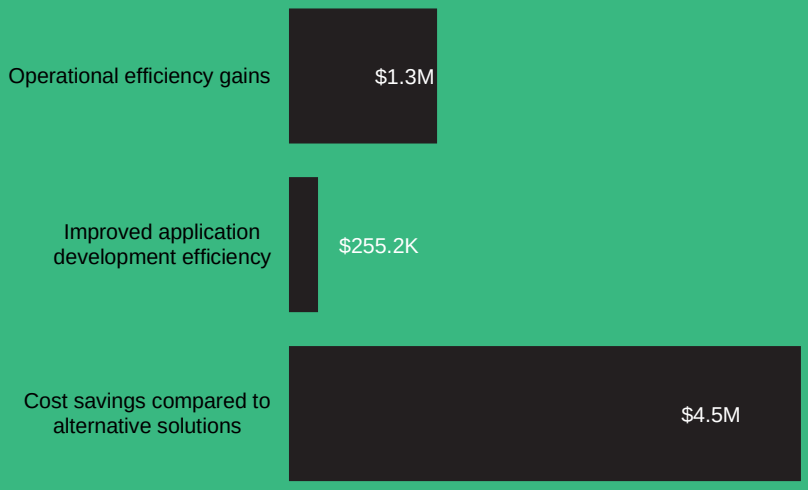
ROI
392%

BENEFITS PV
$6.02M

NPV
$4.80M

PAYBACK
<6 months

Benefits (Three-Year)



“[HCL] Domino comes with its own built-in database, which makes it very easy and efficient for rapid application development and deployment. And it’s extremely secure, flexible, and scalable.”

— Information systems architect, automation machinery

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 HCL Domino.

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 HCL Domino can have on an organization.

DUE DILIGENCE

Interviewed HCL Domino stakeholders and Forrester analysts to gather data relative to HCL Domino.

INTERVIEWS AND SURVEYS

Interviewed four representatives at organizations using HCL Domino to obtain data with respect to costs, benefits, and risks, and surveyed 119 business and IT decision-makers responsible for their organization's IT modernization strategy in the US.

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 interviewees.

CASE STUDY

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

The HCL Domino Customer Journey

Drivers leading to the HCL Domino investment

Interviews

Role	Industry	Region	Company Annual Revenue
Information systems architect	Automation machinery	Headquartered in the US	US$3 billion
Head of IT	Civil engineering	Headquartered in Germany	US$73 million
Senior IT manager	Civil construction	Headquartered in the US	US$1 billion
CIO	Insurance	Headquartered in the US	US$65 million

KEY CHALLENGES

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

- **Inefficient manual processes.** Prior to using HCL Domino, organizations relied on manual processes using paper forms or spreadsheet files. Tracking business processes was either difficult or not possible. This led to lengthy and time-consuming business processes, keeping productivity and employee morale down. It became operationally challenging to continue status quo.
- **Costly disparate solutions.** HCL Domino allowed the organizations to build applications they needed. This was especially useful where use cases were unique and not easily found in out-of-the-box solutions. Packaged solutions required additional work by developers to make tweaks or upgrades. These custom configurations could be extremely complex since the solutions from different vendors would reside on different platforms.

WHY HCL DOMINO?

The interviewees' organizations searched for a solution that could:

- Empower rapid development of custom applications.
- Enable modernization of applications based on evolving business requirements.
- Reduce IT costs and resource utilization.

> **"We created around 30 apps including our own CRM, ERP, and HCM that intensively cover all of our business requirements and [are] completely customized to our needs at 100%."**
>
> *Head of IT, civil engineering*

COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an ROI analysis that illustrates the areas financially affected. The composite organization is representative of the 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 a billion-dollar civil engineering organization. It is headquartered in and provides most of its services in the US.

Deployment characteristics. The organization has 2,000 employees and each uses applications created on HCL Domino daily. Over time, the organization creates approximately 50 applications on HCL Domino. It does not create new applications regularly anymore and focuses on adding new features based on business requirements.

Key Assumptions

- **$1.5B annual revenue**
- **2,000 employees in Year 1**
- **50 applications on HCL Domino**
- **Headquartered in the US**

"We'll continue to use Domino as we have over the past 22 years and continue to grow as we add new features and capabilities to our existing applications."

Senior IT manager, civil construction

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	Operational efficiency gains	$331,959	$526,388	$741,514	$1,599,860	$1,293,922
Btr	Improved application development efficiency	$100,639	$102,735	$104,832	$308,206	$255,157
Ctr	Cost savings compared to alternative solutions	$1,749,600	$1,802,088	$1,856,326	$5,408,014	$4,474,559
	Total benefits (risk-adjusted)	$2,182,198	$2,431,211	$2,702,671	$7,316,079	$6,023,638

OPERATIONAL EFFICIENCY GAINS

Evidence and data. The interviewees' organizations implemented HCL Domino due to the need to digitalize processes, and this became part of their digital transformation journeys. They replaced manual processes with the ability to upgrade applications with new features based on current business needs. The organizations created applications for multiple use cases and business operational needs, including ERP, CRM, HCM, and finance. Before adopting HCL Domino, they used paper forms instead of digitalized versions, and each paper form had a lengthy round time from initiation to end. The digitalization of forms enabled with applications built on HCL Domino reduced the typical round time of paper forms from weeks or days to within hours or minutes.

- The Head of IT from a civil engineering company said the digitalization of processes meant their organization could create notification capabilities with HCL Domino. Each time a digital form reached a milestone, an email notification was sent. The organization could also automate and create a daily summary of notifications for newly opened projects.
- A senior IT manager from a civil construction company said their organization needed to schedule a work roster for nearly 400 employees. Employees needed to know which worksite they had to report to each day because it would determine the tools they needed to pack. This used to be manual and so time-consuming that administrators needed to prepare work schedules the day before.
- The CIO in the insurance industry said their organization was able to reduce the time taken for processing checks payouts from weeks to days.

> **"Our digitalization using [HCL] Domino reduced the typical round-trip time of processes from weeks or days to hours or minutes."**
>
> *Head of IT, civil engineering*

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

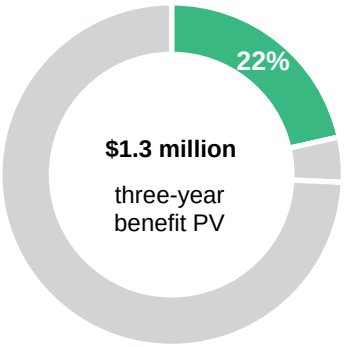
- The number of employees grows at 3% annually.

- On average, each employee is involved in 208 processes annually.
- On average, each employee saves 3.5 minutes on each process.
- In Year 1, 50% of the processes are managed by applications developed on HCL Domino. This increases to 75% in Year 2 and to 100% in Year 3.
- 80% of the time saved is converted to new productivity.

Risks. Organizations may realize results that differ from those presented in the financial model due to:

- Variance in the number of processes handled per employee.
- Variance in the time saved per process.
- Variance in the average salary of employees.
- Differences in realized productivity conversions.

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 $1.3 million.



Operational Efficiency Gains

Ref.	Metric	Source	Year 1	Year 2	Year 3
A1	Number of employees	Composite	2,000	2,060	2,122
A2	Average number of processes per employee (annually)	Composite	104	156	208
A3	Average time saved per process (minutes)	Composite	3.5	3.5	3.5
A4	Total time saved by employees (hours)	Composite	12,133	18,746	25,747
A5	Average hourly salary per employee	TEI standard	$38	$39	$40
A6	Productivity conversion	Assumption	80%	80%	80%
At	Operational efficiency gains	A4*A5*A6	$368,843	$584,875	$823,904
	Risk adjustment	↓10%			
Atr	Operational efficiency gains (risk-adjusted)		$331,959	$526,388	$741,514
	Three-year total: $1,599,860			**Three-year present value: $1,293,922**	

IMPROVED APPLICATION DEVELOPMENT EFFICIENCY

Evidence and data. Interviewed decision-makers said that one of the key benefits of HCL Domino is having the ability to create highly customized applications to support their organization's business needs. These needs were often unique to the organization's industry and were not filled by typical, out-of-the-box solutions. The solutions they needed to configure can be extremely complex and often involve peculiarities that require custom tooling and development (e.g., visualization components in an application to enable employees to pick the right components).

An information systems architect from an automation machinery company noted that compared to other application-development solutions, HCL Domino may potentially be 10 times more efficient at creating applications to support their organization's unique and core business needs.

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

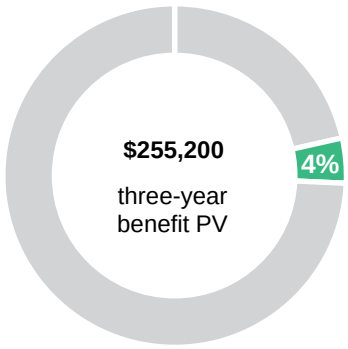
- The composite organization is a civil engineering company that provides services unique to its business.
- Two developers are required to develop or upgrade applications on HCL Domino.
- The developers spend 70% of their time on these tasks.
- The average hourly salary of a developer is $48 and increases 3% annually.
- 80% of the time saved is converted to new productivity.

Risks. Organizations may realize results that differ from those presented in the financial model due to:

- Variance in the number of developers required.
- Variance in the percentage of time spent by developers on developing or upgrading applications.
- Difference in the average hourly salary of developers.
- Productivity conversion.

> **"[HCL] Domino definitely gives us a competitive advantage because we can reutilize core code and build corporate wide apps much faster than [with] other solutions."**
>
> *Senior IT manager, civil construction*

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $255,200.



Improved Application Development Efficiency

Ref.	Metric	Source	Year 1	Year 2	Year 3
B1	Number of developers	Composite	2	2	2
B2	Percentage of time spent developing or upgrading applications (with HCL Domino)	Composite	70%	70%	70%
B3	Number of hours spent developing or upgrading applications (with HCL Domino)	B1*B2*2,080	2,912	2,912	2,912
B4	Number of hours spent developing or upgrading applications (without HCL Domino)	Composite	5,824	5,824	5,824
B5	Average hourly salary of developer	TEI standard	$48	$49	$50
B6	Productivity conversion	Assumption	80%	80%	80%
Bt	Improved application development efficiency	(B4-B3)*B5*B6	$111,821	$114,150	$116,480
	Risk adjustment	↓10%			
Btr	Improved application development efficiency (risk-adjusted)		$100,639	$102,735	$104,832
	Three-year total: $308,206			**Three-year present value: $255,157**	

COST SAVINGS COMPARED TO ALTERNATIVE SOLUTIONS

Evidence and data. Interviewed decision-makers explained that in order to replace HCL Domino and the applications created on the platform, their organizations would have to purchase solutions from at least two vendors and as many as five.

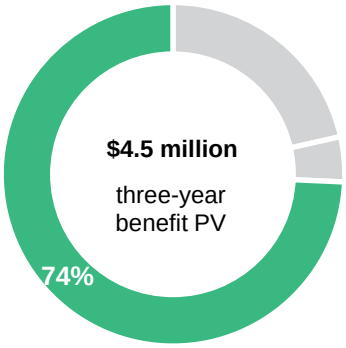
- Interviewed decision-makers said HCL Domino is the most cost competitive solution for their organizations.
- The change management required would also mean prohibitive operational costs. The organizations would require additional person-hours from IT to create interface between the alternative solutions, and they would require further customizations to meet unique business use cases and needs.

Modeling and assumptions. For the composite organization, Forrester assumes the total costs of alternative solutions to replace applications built on HCL Domino is 10 times the cost of licenses of HCL Domino.

Risks. Organizations may realize results differ from those presented in the financial model due to the cost of alternative solutions.

> **"If we have not been using [HCL] Domino, the cost of applications would be 10 times the operational cost of Domino."**
>
> *Head of IT, civil engineering*

Results. To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of $4.5 million.



Cost Savings Compared To Alternative Solutions

Ref.	Metric	Source	Year 1	Year 2	Year 3
C1	Cost of alternative solutions	Composite	$2,160,000	$2,224,800	$2,291,760
Ct	Cost savings compared to alternative solutions	C1-Dt	$1,944,000	$2,002,320	$2,062,584
	Risk adjustment	↓10%			
Ctr	Cost savings compared to alternative solutions (risk-adjusted)		$1,749,600	$1,802,088	$1,856,326
	Three-year total: $5,408,014			**Three-year present value: $4,474,559**	

UNQUANTIFIED BENEFITS

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

- **Security.** HCL Domino features improved security and Active Directory integration. Time-based one-time password (TOTP) provides an additional layer of security when authenticating users to a Domino Web server. Domino is also capable of biometric authentication when users access applications on iOS mobile or Android devices. End users are spared from memorizing multiple passwords and only need to maintain one password to access both their Domino server and Active Directory. An interviewed decision-maker who was the Head of IT from a civil engineering company also noted that their organization was able to leverage on security built into processes and forms in the applications built on HCL Domino. When creating new forms, permissions can be built, specifying readers and authors who are permitted to read or author documents.
- **Improved employee well-being and regulatory adherence.** According to a senior IT manager of a civil construction company, with HCL Domino, their organization was able to develop and manage employee training applications. While this did not result in a quantifiable benefit, the decision-maker noted that it helped their organization meet safety regulations and guidelines set out by OSHA.

FLEXIBILITY

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

- **Customer-facing applications.** Interviewed decision-makers noted that their organizations initially intended to create mission-critical applications with HCL Domino for their employees' use. However, they realized it could support their customer-facing needs as well. For instance, it allows them to create portals for customers to register for training for their organizations' products and services.
- **Web-based applications.** Organizations that initially created applications for desktops or mobile devices can now also create browser-based applications with HCL Nomad that comes with HCL Domino. Domino developers can design applications that run on web browsers and mobile devices without recoding the applications.

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

> **"[HCL] Domino does a very good job in replication and disaster recovery. They have never left us in a situation where the performance was not enough."**
>
> *Head of IT, civil engineering*

Analysis Of Costs

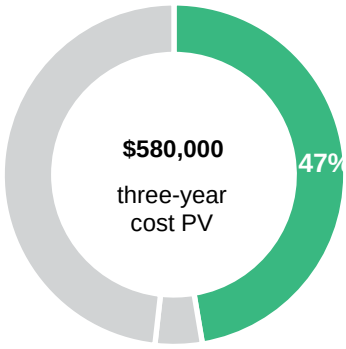
Quantified cost data as applied to the composite

Total Costs							
Ref.	**Cost**	**Initial**	**Year 1**	**Year 2**	**Year 3**	**Total**	**Present Value**
Dtr	License costs	$0	$226,800	$233,604	$240,635	$701,039	$580,035
Etr	Implementation costs	$52,622	$695	$695	$695	$54,707	$54,351
Ftr	Ongoing application and platform development and management costs	$0	$231,000	$237,930	$245,068	$713,998	$590,760
	Total costs (risk-adjusted)	$52,622	$458,495	$472,229	$486,398	$1,469,744	$1,225,146

LICENSE COSTS

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

- There is only one type of license for end users of the composite organization. There is no distinction between licenses for end users or developers.
- The composite organization starts with 2,000 licenses initially, and this increases by 3% annually in tandem with the number of employees.
- The composite organization pays the license cost up front.
- Pricing may vary. Contact HCL Domino for additional details.



Risks. Organizations may realize results differ from those presented in the financial model due to differences in license costs.

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 $580,000.

License Costs						
Ref.	**Metric**	**Source**	**Initial**	**Year 1**	**Year 2**	**Year 3**
D1	Number of user	A1	0	2,000	2,060	2,122
D2	Cost per license (annual)	HCL	0	$108	$108	$108
Dt	License costs	D1*D2	$0	$216,000	$222,480	$229,176
	Risk adjustment	↑5%				
Dtr	License costs (risk-adjusted)		$0	$226,800	$233,604	$240,635
	Three-year total: $701,039			**Three-year present value: $580,035**		

IMPLEMENTATION COSTS

Evidence and data. Interviewees said implementation of HCL Domino depended on the scale of their organization's business, the complexity of processes to be digitized, the number of applications, and the utilization of an implementation partner. This affected the number of developers involved and time spent on implementation. Developers also needed to be trained on the use of HCL Domino and learning curves may vary. However, interviewees said a full-stack developer should have little to no learning curve. End users needed little to no training on the use of the applications since they are custom built according to business needs, although they may require some time to get used to the new interface for their processes.

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

- Developers spend 110 hours for planning and implementation of HCL Domino and an additional 50 hours for related administrative work.
- The average hourly salary of a developer is $48.
- The composite engages a professional services firm to help with planning and implementation of HCL Domino.
- The composite incurs one-time training costs for developers.
- Two servers are required and cost $1,579 per server. The ongoing cost of the servers is 20% of the cost of the servers.

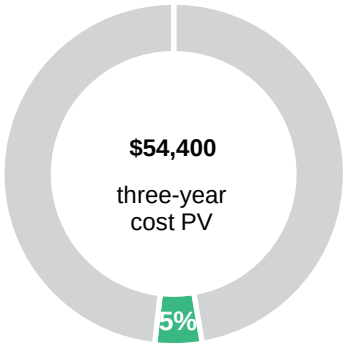
> **"Once an app is created, it can run for 20 or 30 years with occasionally an update that takes just 15 minutes."**
>
> *Head of IT, civil engineering*

Risks. Organizations may realize results differ from those presented in the financial model due to:

- Differences in required developer hours for planning, implementation, and administrative tasks.

- Variances in developer salaries.
- Whether or not the organization engages a professional services firm.
- Variances in training costs.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of $54,400.



Implementation Costs

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
E1	Developer hours	Composite	110			
E2	Developer administrative hours	Composite	50			
E3	Average developer hourly salary	TEI standard	$48			
E4	Developer implementation cost	(E1+E2)*E3	$7,680			
E5	Professional services cost	Composite	$30,000			
E6	Training costs	Composite	$7,000			
E7	Hardware costs	HCL	$3,158	$632	$632	$632
Et	Implementation costs	E4+E5+E6+E7	$47,838	$632	$632	$632
	Risk adjustment	↑10%				
Etr	Implementation costs (risk-adjusted)		$52,622	$695	$695	$695
	Three-year total: $54,707			**Three-year present value: $54,351**		

ONGOING APPLICATION AND PLATFORM DEVELOPMENT AND MANAGEMENT COSTS

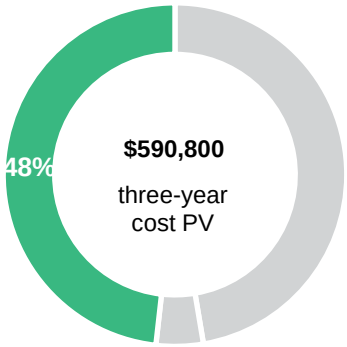
Evidence and data. Interviewees said organizations early in their implementation of HCL Domino will see rapid creation of new applications. For others, development of new applications may plateau and they will instead focus their efforts on performing ongoing application upgrades and maintenance as well as managing and maintaining the HCL Domino platform. This cost section applies to the latter type of organization.

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

- One developer is required to maintain and manage HCL Domino 50% of the time.
- Two developers are required to develop upgrades and to provide maintenance for applications 80% of the time.

Risks. Organizations may realize results different from those presented in the financial model due to differences in the number of developers and full-time equivalents (FTEs) required for ongoing application development and maintenance and platform management.

Results. To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of $590,800.



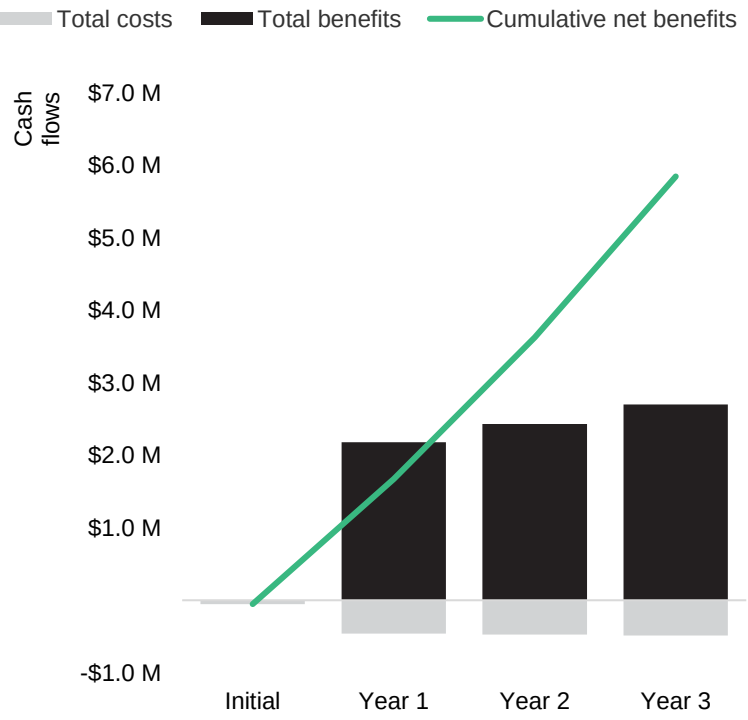
Ongoing Application And Platform Development And Management Costs

Ref.	Metric	Source	Initial	Year 1	Year 2	Year 3
F1	Number of developers for ongoing management	Composite		1	1	1
F2	Percentage of time spent managing HCL Domino	Composite		50%	50%	50%
F3	Annual salary of developer	TEI standard		$100,000	$103,000	$106,090
F4	Ongoing management costs	F1*F2*F3		$50,000	$51,500	$53,045
F5	Number of developers for application development and management	Composite		2	2	2
F6	Percentage of time spent creating and managing applications in HCL Domino	Composite		80%	80%	80%
F7	Ongoing application development and management costs	F3*F5*F6		$160,000	$164,800	$169,744
Ft	Ongoing application and platform development and management costs	F4+F7	$0	$210,000	$216,300	$222,789
	Risk adjustment	↑10%				
Ftr	Ongoing application and platform development and management costs (risk-adjusted)		$0	$231,000	$237,930	$245,068
	Three-year total: $713,998			**Three-year present value: $590,760**		

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	($52,622)	($458,495)	($472,229)	($486,398)	($1,469,744)	($1,225,146)
Total benefits	$0	$2,182,198	$2,431,211	$2,702,671	$7,316,079	$6,023,638
Net benefits	($52,622)	$1,723,702	$1,958,981	$2,216,273	$5,846,335	$4,798,492
ROI						392%
Payback						<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%.

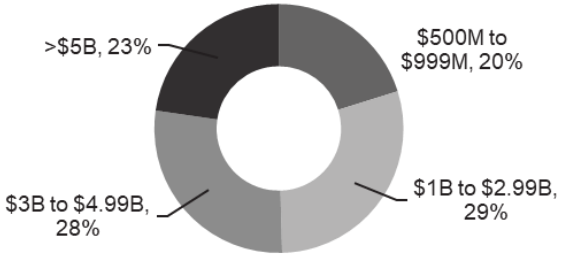
PAYBACK PERIOD

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: Survey Demographics

"Which of the following best describes the industry to which your company belongs?"

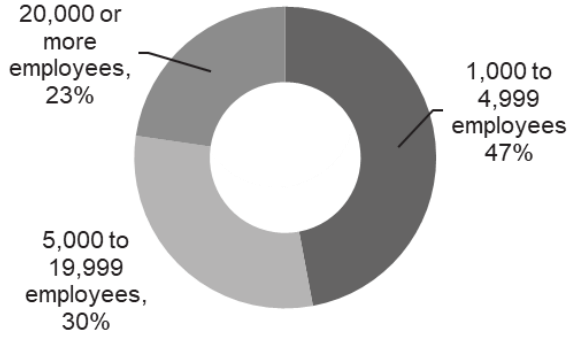
"Using your best estimate, what is your organization's annual revenue?"



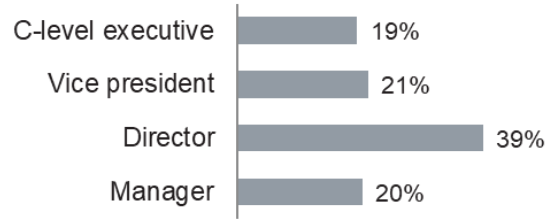
"Which of the following best describes your current position/department?"

83%	IT
17%	Strategy and transformation

"Using your best estimate, how many employees work for your firm/organization worldwide?



"Which title best describes your position at your organization?"



"What is your level of responsibility when it comes to IT modernization strategies at your organization?"

37%	I am the final decision-maker for my organization's IT modernization strategies.
45%	I am part of a team making decisions for my organization's IT modernization strategies.
18%	I influence decisions related to my organization's IT modernization strategies.

"What are you or your team's plans to adopt low-code development platforms?"

6%	Not interested
13%	Interested, but no immediate plans to implement in the next 12 months
21%	Planning to implement in the next 12 months
17%	Implementing
18%	Implemented, but no immediate plans to expand
25%	Implemented and currently expanding

Base: 119 business and IT decision-makers responsible for their organization's IT modernization strategy in the US
Source: A commissioned study conducted by Forrester Consulting on behalf of HCL, November 2022

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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