

FORRESTER®

The Total Economic Impact™ Of Incorta Direct Data Platform

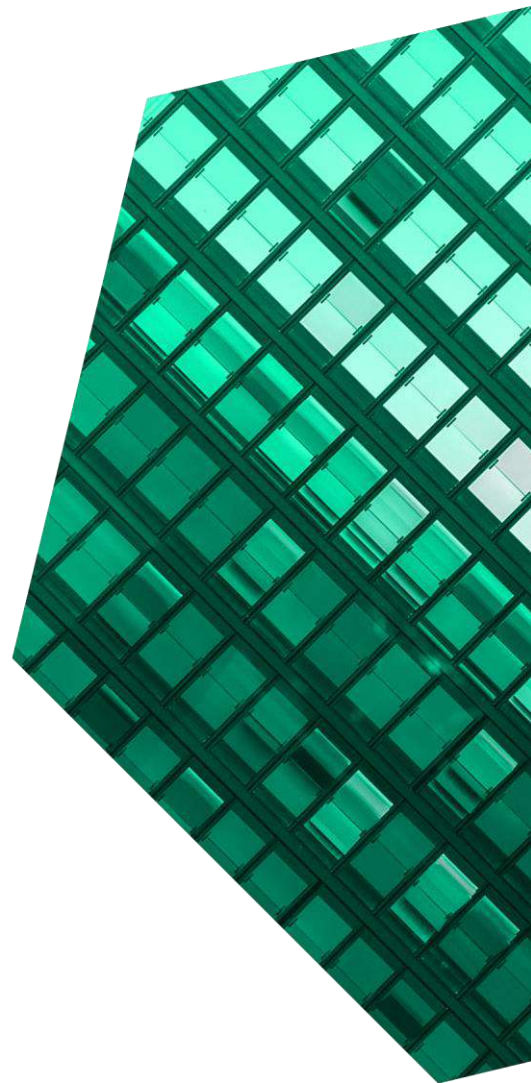
Cost Savings And Business Benefits
Enabled By Direct Data Platform

OCTOBER 2020

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Executive Summary

The Direct Data Platform by Incorta enables business teams to acquire, analyze and gain insight from their transactional data in a fraction of the time needed by legacy BI solutions. Every knowledge worker is now empowered to consume data, explore new scenarios when curiosity strikes, and make impactful data-driven business decisions.

Incorta commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study and examine the potential return on investment (ROI) enterprises may realize by deploying the Incorta Direct Data Platform. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Incorta on their organizations. Incorta provides organizations a solution that democratizes data analysis and simplifies the infrastructure and support needed to increase real-time business insights. With this platform, business analysts are enabled to access and link multiple data sources, bypassing much of the time- and resource-intensive data engineer support needed for current data environments.

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed three companies and five professionals with experience using the Incorta Direct Data Platform. For the purposes of this study, Forrester aggregated the experiences of the interviewed customers and combined the results into a single composite organization.

Prior to using the Incorta Direct Data Platform, customers experienced significant challenges with integrating and processing complex business data sets. Enterprises desired a better way to deliver business reporting that could bypass legacy extract, transform, load (ETL) processes, which are fragile and time-consuming.

KEY STATISTICS



Return on investment (ROI)

313%



Net present value (NPV)

\$11.05M

As noted by a director of engineering at a global retail beverage company, marketplace customers were not necessarily seeking to replace their prior environment: “Our goal is not to replace something, our goal is to get immediate business value where we are struggling.”

After the investment in the Incorta Direct Data Platform, one interviewee summarized the three key results his organization experienced: “First, a unified view of all our data from different systems, which is kind of difficult in today’s age of big data and cloud. Second, the speed of iterations on how quickly we could run ad hoc analysis on existing and new data sources to answer business questions. Third, it changed the culture, allowing our employees to be more curious about data.” He described the benefit of democratizing data access by saying: “People play more intelligently with the data now than ever before. There is more time available now to do inquisitive analytics where you get to explore what-if scenarios,

trending, and anomaly detection.” Another interviewee explained: “It’s basically like optimization. We are optimizing so many things so we can maximize the on-shelf availability and avoid waste.”

KEY FINDINGS

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

- **Reduced inventory carrying costs by \$7,762,585.** The financial services executive explained that: “Previously it took weeks before we start analyzing the data from a new request. But with Incorta, you’re talking about shrinking that into minutes, into hours now.” Interviewees also described use cases where they were able to optimize their ordering, and supply chain which resulted in significant bottom line savings.
- **Increased productivity of business analysts totaled \$5,256,583.** By providing access to data sources through a simplified process, business analysts avoid unnecessary time spent waiting for the development and analysis of reports. A senior vice president at a financial services organization said: “We’re saving at least 50% [of] people’s time compared to the old way of managing or manipulating the data together.”
- **Increased productivity of data engineers by \$1,562,796.** The level of effort needed from data engineers is reduced through the ability of Incorta to reduce time-intensive, legacy ETL processes

“We estimate 200 hours of work for one integration. That is just the build and test part of it, a one-time activity which is done as part of the project. We do the exact same thing in Incorta — it takes me about 5 minutes.”

SVP of risk data analytics, financial services

and efficiently integrate multiple, massive data sources into the Incorta platform requiring minimal effort to maintain going forward.¹

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

- **Avoided infrastructure costs.** Interviewees described the ability to bring in more data from increased sources and increase the number of business users with more capabilities. In traditional environments, these added capabilities would not have been able to happen without incurring increased expenses in building out costly infrastructure.
- **Reduced system maintenance while delivering more business insights.** The implementation of the Incorta Direct Data Platform simplified the environment at the interviewed organizations. This reduced the additional maintenance costs for technologies such as middleware and visualization layers.

“For urgent requests, the power of Incorta is that it allows us to quickly bypass the traditional time-consuming ETL process. By avoiding traditional data pipelines, we quickly move to true analytics, delivering information to the people who can react to it.”

SVP of risk data analytics, financial services

Costs. Risk-adjusted PV costs include:

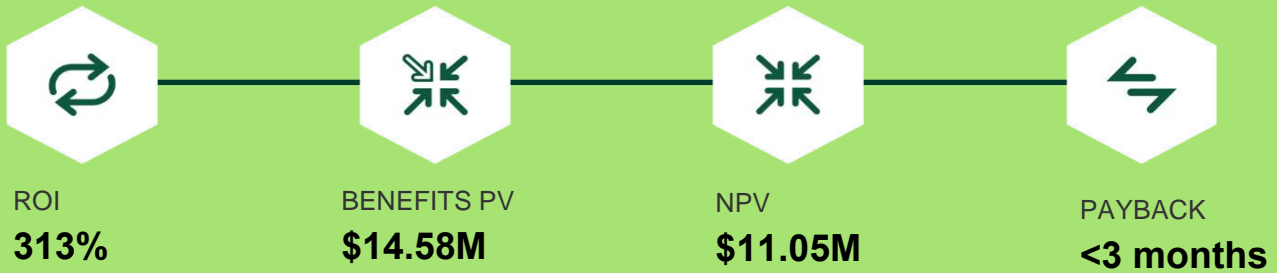
- **Cost of the Incorta platform and storage is estimated at \$3,499,691.** The cost of Incorta licensing and cloud storage has been estimated based on the composite organization and developed for this study.

- **Administrative costs totaled \$34,990.** Ongoing support of the Incorta environment required a portion of time from data engineers.

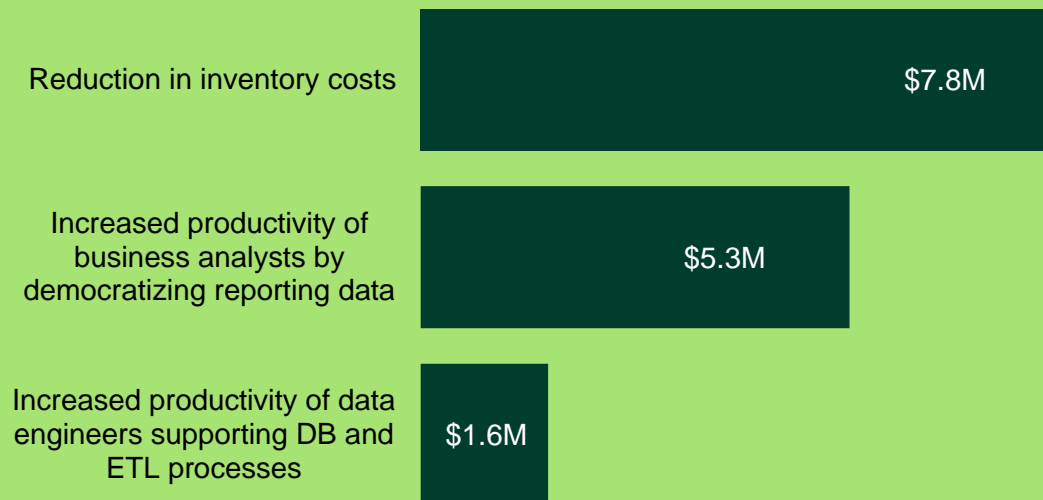
The customer interviews and financial analysis found that a composite organization experiences benefits of \$14.58M over three years versus costs of \$3.53M, adding up to a net present value (NPV) of \$11.05M and an ROI of 313%.²

“**Incorta allows us to do everything within the same platform where previously we needed three or four different tools. Now we just do everything once.**”

— SVP of risk data analytics, financial services



Benefits (Three-Year)



TEI FRAMEWORK AND METHODOLOGY

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

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

DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Incorta 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 Direct Data Platform.

Incorta 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.

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



DUE DILIGENCE

Interviewed Incorta stakeholders and Forrester analysts to gather data relative to the Direct Data Platform.



CUSTOMER INTERVIEWS

Interviewed five decision-makers at organizations who used the Direct Data Platform for at least six months to obtain data with respect to costs, benefits, and risks.



COMPOSITE ORGANIZATION

Designed a composite organization based on characteristics of the interviewed 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 interviewed organizations.



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 Incorta Direct Data Platform Customer Journey

■ Drivers leading to the Direct Data Platform investment

Interviewed Organizations			
Industry	Region	Interviewee	Revenue
Retail food chain	Headquartered in North America	Director of engineering	25+ billion
Financial services	Headquartered in North America	Senior vice president of risk data analytics	6.8 billion
High tech	Headquartered in North America	Senior manager	5.5 billion

Modern enterprises must reorient their strategy, processes, and technology to be customer-obsessed in order to win, serve, and retain customers. Consumers no longer have patience for companies' complex, time-consuming internal processes; they have plenty of competitive choices. Therefore, data and insights leaders cannot wait weeks or months to turn around critical insights to their business stakeholders to serve these demanding customers; they need greater agility in their tools and platforms.

Source: "The Three-Part Guide To BI Modernization", Forrester Research Inc., December 4, 2018

KEY CHALLENGES

The interviewed organizations had invested millions in data analytics programs, but they faced a deficit in meeting the ever-increasing and constantly changing needs that the business demands. At the same time, the proliferation of data sources and the pressure to

be *insights-driven* left organizations struggling with system performance and turnaround times for complex requests. Interviewees described how these reporting requests would grind their systems to a halt and return results to users hours or even days after running a report.³

"Our previous environment was centralized, and it was taking more than a month [to] make even slight changes to existing reports. It was too slow for sales and marketing teams."

Senior manager, high tech

The director of engineering said: "The challenges you are running into is the performance because we have so much data in these systems and as we try to run reports on those, the performance was getting degraded. We wanted something less complex, that can handle more data, and won't force us to hire a lot of people with new skill sets."

“When the volume is small, for example less than 10 million records, traditional BI tools can still handle those requests in a timely manner. However, when you have hundreds of millions of records using the traditional processes and tools would take you weeks before we could start analyzing the data to view this process and building this process. But with Incorta, you’re talking about you’re shrinking that into minutes, into hours now.”

SVP of risk data analytics, financial services

SOLUTION REQUIREMENTS/INVESTMENT OBJECTIVES

The interviewed organizations searched for a solution that could:

- **Provide a less complex complement to their existing data infrastructure.** Interviewees desired a solution that could meet the increasing needs of the business to quickly analyze large data sets, without needing to add huge infrastructure costs. They wanted to avoid procuring new, big data systems with multiple components to install, manage, and maintain on an ongoing basis, adding inherent cost to the whole ecosystem.

“Reporting performance has improved. The amount of time earlier reports used to take to run was more than 2.5 minutes. It has been beneficial for us to utilize Incorta to reduce time for operational reporting because of the in-memory analytics they use.”

Senior manager, high tech

- **Avoid hiring additional FTEs.** Teams looked for a technology that would not require them to add new skill sets increasing employee costs. One

director of engineering said, “It’s an expensive thing for us to try to bring in a new technology not supported by our current skill sets and have to build a team to support it.”

COMPOSITE ORGANIZATION

Based on the interviews, Forrester constructed a TEI framework, a composite company, and a ROI analysis that illustrates the areas financially affected. The composite organization is representative of the three companies that Forrester interviewed and is used to present the aggregate financial analysis in the next section. The composite organization has the following characteristics:

- **Description of composite.** The global, multimillion-dollar business-to-consumer organization has six business units: finance, planning, sourcing, manufacturing, distribution, and inventory management. The organization has a strong brand, global operations, and a large customer base.
- **Deployment characteristics.** The organization has global operations across hundreds of locations. Data that is being currently used from these locations, as well as other relevant data sources, are connected to the Incorta Direct Data Platform for four of the six business units to support existing analytics, planning, inventory management, and other programs.

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	Reduction in inventory costs	\$2,700,000	\$3,150,000	\$3,600,000	\$9,450,000	\$7,762,585
Btr	Increased productivity of business analysts by democratizing reporting data	\$2,113,750	\$2,113,750	\$2,113,750	\$6,341,250	\$5,256,583
Ctr	Increased productivity of data engineers supporting DB and ETL processes	\$509,200	\$636,500	\$763,800	\$1,909,500	\$1,562,796
	Total benefits (risk-adjusted)	\$5,322,950	\$5,900,250	\$6,477,550	\$17,700,750	\$14,581,964

REDUCTION IN INVENTORY COSTS

Evidence and data. Forrester describes customer-obsessed enterprises as being customer-led, insights-driven, fast, and connected. Firms aspire to achieve this vision, but operationalizing it is easier said than done.⁴ Interviewees used Incorta to establish a near real-time, insights-driven approach to gathering customer information to make decisions that result in real impacts to the bottom line. Some example use cases include:

- When customers do not use gift card balances, businesses can reduce liabilities on their financial statements and recognize additional revenue (called breakage). One organization capitalized on changes in accounting rules to optimize the recognition of breakage. By using the Incorta Direct Data Platform, the interviewee was able to perform a 20+ year historical analysis of gift card usage and establish credible guidelines for when to accrue breakage revenue. This allowed the organization to report a one-time, multimillion-dollar revenue recognition increase on their balance sheet.
- One organization explained an example of the challenge in becoming customer-obsessed. While they have been doing store sales reporting

for years, the business wanted to be able to analyze sales of a specific product, down to the region, city, group, and store level, which meant being able to work with a data set of over 3 billion reports. The ability to analyze this massive data set allowed them to adjust product components and change the supply chain sourcing. In addition to the bottom-line impact, the company was able to deliver on a brand promise of being a more sustainable business.

Modeling and assumptions.

- The business to consumer composite organization reported losing over 500 million dollars in wasted inventory per year.
- By utilizing the Incorta platform, they were able to optimize their supply chain and reduce inventory losses by 30%, growing to 40% by Year 3.
- The composite model assumes a reduction in inventory carrying costs for the saved product by 20%.
- Ten percent attribution credit is given to Incorta because the tool enables the business impact. However, to recognize that business impact, the

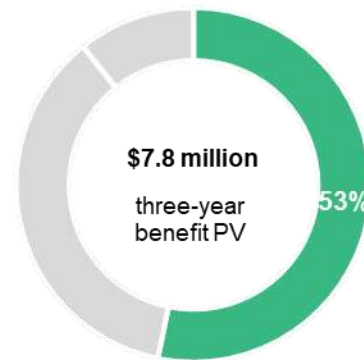
organization must react with the right decisions and actions to enable the savings.

“What we really achieved through using Incorta was a tool which can scale to that data set, and we don’t have to build a specific report every time the business wants a new analysis. Our engineering team saved a lot of time, and the business sees the value through the insights and being able to make decisions [on] which products are most profitable to sell.”

Director of engineering, retail food chain

- The actual dollars lost will vary from business to business.
- The business must be able to act on the analysis which is performed using Incorta.

To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$7,762,585.



Risks. The results for a reduction in inventory costs may vary based upon the following:

Reduction In Inventory Costs					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Annual lost inventory	Composite	\$500,000,000	\$500,000,000	\$500,000,000
A2	Reduction in lost inventory	Assumption	30%	35%	40%
A3	Dollars saved in reduced waste	A1*A2	\$150,000,000	\$175,000,000	\$200,000,000
A4	Reduction in inventory carrying costs	Assumption	20%	20%	20%
A5	Attribution to Incorta		10%	10%	10%
At	Reduction in inventory costs	A3*A4*A5	\$3,000,000	\$3,500,000	\$4,000,000
	Risk adjustment	↓10%			
Atr	Reduction in inventory costs (risk-adjusted)		\$2,700,000	\$3,150,000	\$3,600,000
Three-year total: \$9,450,000			Three-year present value: \$7,762,585		

INCREASED PRODUCTIVITY OF BUSINESS ANALYSTS BY DEMOCRATIZING REPORTING DATA

Evidence and data. Interviewees discussed how Incorta enabled analysts to complete their work in a manner fitting to the demands of today's business climate. Organizations described how before Incorta, most business intelligence (BI) reporting was the function of a single, centralized team. Business units begrudgingly came to centralized BI and analytics teams, and they were accustomed to waiting up to six months to get new business insights, due to the huge backlog of requests.

After deploying Incorta, the engineering team was able to train business analysts to handle most of their own reporting. The director of engineering said: "We trained teams on Incorta, which are supporting their specific business function. Instead of hiring or retraining the team supporting BI tools, we trained the teams like finance or manufacturing to deliver within their space. Now, everyone in the organization has [the] capability to deliver on the platform, helping us deliver crucial business insights faster, and not having to wait months."

"The business wants it now, or they want to have the self-service capabilities which were extremely difficult to provide on the old [legacy data ecosystem provider] boxes."

Director of engineering, retail food chain

The financial services executive described the time savings his team saved the business by using Incorta for management and operational reporting, "The time to prepare management reports could easily take 40 hours of two people talking, and we've heard more than twenty examples of that type of scenario in our first year, which is a significant time savings." Similar

productivity gains were described on the operations side. Traditionally, to create operational reports, analysts would dump multiple reports into a spreadsheet and then start doing tables and charts. Because Incorta can do everything within the same platform, business analyst productivity has improved at least 50%, if not more, by not having to manipulate the data together.

"Because we can bring down the infrastructure costs and improve upon time-to-market expectations, Incorta has delivered a huge benefit for our stakeholders. Time-to-market solutioning changed from 1.5 months to a week and a half. This resulted in huge ROI, not necessarily always just from a cost perspective."

Senior manager, high tech

Modeling and assumptions. For this benefit, the composite organization has the following characteristics:

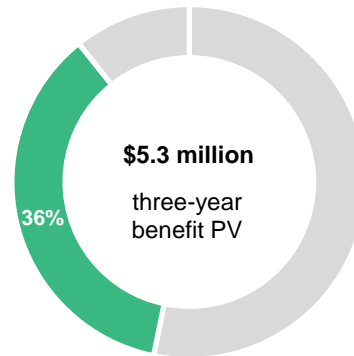
- Fifty data engineers supporting the organization's Incorta platform have a fully burdened annual salary of \$89,000.
- There is an 25% reduction in the effort needed to support database (DB) and ETL processes.
- Fifty percent of the productivity improvement is recaptured and put toward other value-added tasks.

Risks. The productivity increases by business analysts will vary based upon:

- The number of business units which adopt Incorta.

- The skill sets of the business analysts performing analysis.
- The fully burdened salaries of the professionals involved.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$5,256,583.



Increased Productivity Of Business Analysts By Democratizing Reporting Data					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
B1	Business units using Incorta		4	4	4
B2	Analysts per business unit		50	50	50
B3	Fully burdened annual salary		\$89,000	\$89,000	\$89,000
B4	Reduction of standard workload through direct access to data and simplified report customization		25%	25%	25%
B5	Productivity recapture		50%	50%	50%
Bt	Increased productivity of business analysts by democratizing reporting data	$B1*B2*B3*B4*B5$	\$2,225,000	\$2,225,000	\$2,225,000
	Risk adjustment	↓5%			
Btr	Increased productivity of business analysts by democratizing reporting data (risk-adjusted)		\$2,113,750	\$2,113,750	\$2,113,750
Three-year total: \$6,341,250			Three-year present value: \$5,256,583		

INCREASED PRODUCTIVITY OF DATA ENGINEERS SUPPORTING DB AND ETL PROCESSES

Evidence and data. After implementing the Incorta Direct Data Platform, customers noted that the solution greatly simplified the work of their data engineers. An interviewee described that before Incorta, it would take his team 200 hours to build, test, and deploy a new data integration into the data lake. After deploying Incorta, they can perform this same function in 5 minutes. Interviewees described the time savings afforded to their teams as:

- The retail beverage executive explained: “I am essentially writing zero lines of code. I’m just going to the system and doing it one time, that’s it

“What we paid in the first-year license costs, we saved it from the delivery of the very first project. If we were building it without Incorta, it was a 12-month project. We delivered that project in 12 weeks.”

Director of engineering, retail food chain

— a huge savings when it comes to moving the data.”

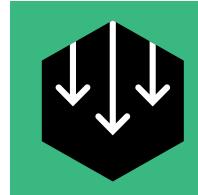
Modeling and assumptions. For this benefit, the composite organization Forrester uses to model the benefits of the Incorta Direct Data Platform has the following characteristics:

- Twenty-five data engineers support the organization’s Incorta platform with a fully burdened annual salary of \$134,000 each.
- There is an 80% reduction in the effort needed to support database (DB) and ETL processes, which takes up approximately 40% of work time.
- Fifty percent of the productivity improvement is recaptured and put toward other value-added tasks.

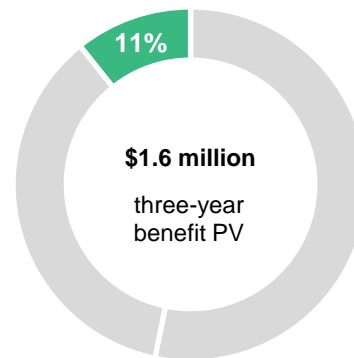
Risks. The risks associated with the realization of this benefit could vary by:

- The number of data engineers at the organization.
- The variance in the reduction in effort.
- The fully burdened salaries of the professionals involved.

To account for these risks, Forrester adjusted this benefit downward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$1,562,796.



80% reduction in work previously done to support ETL processes



Increased Productivity Of Data Engineers Supporting DB And ETL Processes					
Ref.	Metric	Calculation	Year 1	Year 2	Year 3
C1	Number of data engineers supporting organization	Customer interview	25	25	25
C2	Fully burdened annual salary		\$134,000	\$134,000	\$134,000
C3	Portion of work time impacted by Incorta	Customer interview	40%	50%	60%
C4	Reduction of effort needed to support DB and ETL processes	Customer interview	80%	80%	80%
C5	Productivity recapture		50%	50%	50%
Ct	Increased productivity of data engineers supporting DB and ETL processes	$C1 * C2 * C3 * C4 * C5$	\$536,000	\$670,000	\$804,000
	Risk adjustment	↓5%			
Ctr	Increased productivity of data engineers supporting DB and ETL processes (risk-adjusted)		\$509,200	\$636,500	\$763,800
Three-year total: \$1,909,500			Three-year present value: \$1,562,796		

UNQUANTIFIED BENEFITS

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

- **Avoided infrastructure costs.** An interviewee described a use case where they onboarded a new piece of software to address a security issue. Originally, to support that new security application, IT planned to build a data mart to enable the integration of the data between this new system and related systems. The original IT estimate was \$750,000 and took a minimum of six months of development. The interviewee explained: “We replaced this entire original IT estimate with Incorta and added way more value. We brought in more data and sources, and we were able to enable more business users with more capabilities.”
- **Reduced system maintenance while delivering more business insights.** The implementation of the Incorta Direct Data Platform simplified the interviewed organizations’ environments. Although legacy hardware and software were not immediately retired, usage was reduced, and new infrastructure was not added. Therefore, there were no added maintenance costs for technologies processes such as:
 - Ingesting data.
 - Maintaining the platform itself.
 - Visualization layer.
 - Middleware.

This reduced the overall system maintenance which was needed while delivering an enhanced level of insights.

FLEXIBILITY

The value of flexibility is unique to each customer. There are multiple scenarios in which a customer might implement the Incorta Direct Data Platform and

later realize additional uses and business opportunities, including:

- **Potential explosion of business benefits derived from customer data analysis.** The possibilities for insights are extensive if Incorta was used to enable reporting in areas such as sales, marketing, customer experience, and customer service. By speeding time-to-insights, executives are able to turn those insights into business actions that will deliver solutions faster, better, and cheaper.

“The technical support needed to support a traditional BI portal will consist at least five to 10 people. There will be some people on the database side, there will be some people on the ETL side, some people on the reporting side. And then you probably have half on-site and half offshore to make sure it’s a 24/7 support. With Incorta, you’re reducing the hire count by at least 80% to 90%. Your TCO [total cost of ownership] should consider not only the cost of licensing but also the cost of development and support.”

SVP of risk data analytics, financial services

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

Analysis Of Costs

■ Quantified cost data as applied to the composite

Total Costs							
Ref.	Cost	Initial	Year 1	Year 2	Year 3	Total	Present Value
Dtr	Incorta platform and storage costs	\$131,250	\$1,354,500	\$1,354,500	\$1,354,500	\$4,194,750	\$3,499,691
Etr	Incorta administrative costs	\$0	\$14,070	\$14,070	\$14,070	\$40,200	\$42,210
	Total costs (risk-adjusted)	\$131,250	\$1,368,570	\$1,368,570	\$1,368,570	\$4,236,960	\$3,534,681

INCORTA PLATFORM AND STORAGE COSTS

The Incorta platform is licensed to customers for an annual fee. Typically, the licenses are based on the amount of in-memory data.

Modeling and assumptions. The cost of implementing the Incorta Direct Data Platform for the composite organization is based on annual costs incurred by the interviewed customers.

- The licensing costs Forrester assigned to the model are \$750,000, which included up to 300 licenses.
- Customers also utilized cloud storage for Incorta, costing them \$540,000 per year.

- The initial cost to set up use cases, after an initial free of charge proof of capabilities, was \$125,000 in professional services.

Risks. The costs for the Incorta platform and storage costs will vary with:

- The number of use cases utilizing the Incorta platform.
- The cost of data storage charged by the cloud provider.
- The amount of professional services required will vary based on number of use cases and skill sets.
- The amount of in-memory data in the Incorta system.

Incorta Platform And Storage Costs

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
D1	Incorta platform costs			\$750,000	\$750,000	\$750,000
D2	Cloud storage			\$540,000	\$540,000	\$540,000
D3	Professional services for initial deployment		\$125,000			
Dt	Incorta platform and storage costs		\$125,000	\$1,290,000	\$1,290,000	\$1,290,000
	Risk adjustment			↑5%		
Dtr	Incorta platform and storage costs (risk-adjusted)		\$131,250	\$1,354,500	\$1,354,500	\$1,354,500
Three-year total: \$4,194,750			Three-year present value: \$3,499,691			

To account for any potential variance experienced integrating the Incorta Data Platform among organizations, Forrester adjusted this cost upward by

INCORTA ADMINISTRATIVE COSTS

The Incorta platform will require a portion of time from data engineers.

Modeling and assumptions. This section explains how the modeling is done.

- To maintain the Incorta platform the composite organization required two data engineers.
- The fully burdened salary for each engineer is \$134,000 per year.
- Because Incorta is one of many applications maintained by these personnel, Forrester is calculating this cost at 5% of their work time.

5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$3,499,691.

Risks. These costs will vary based on:

- The number of data engineers required to maintain the platform.
- The salaries of the data engineers.

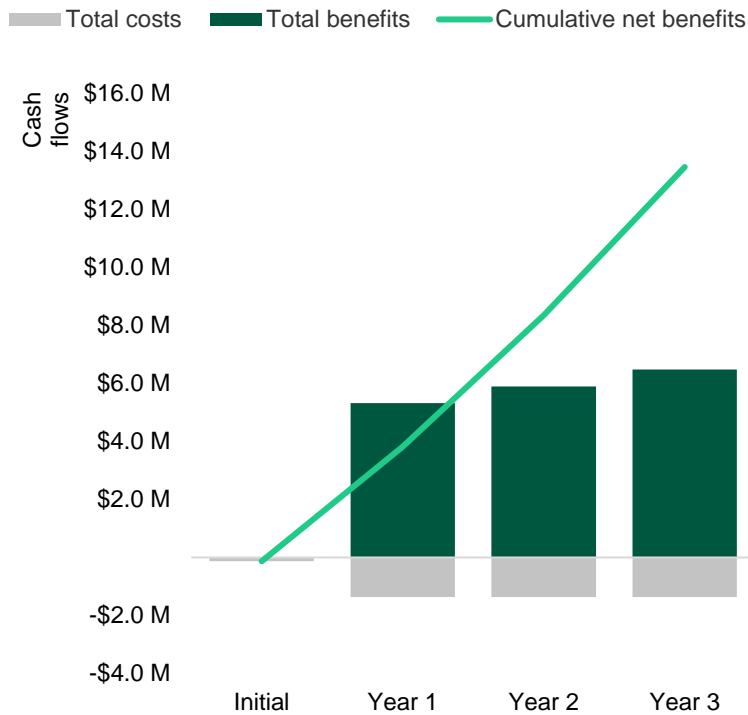
To account for any potential variance experienced integrating the Incorta Direct Data Platform among organizations, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of \$34,990.

Incorta Administrative Costs						
Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
E1	Data engineers maintaining Incorta			2	2	2
E2	Fully burdened data engineer salary			\$134,000	\$134,000	\$134,000
E3	Percentage of time dedicated to maintenance of Incorta	Source: Interview		5%	5%	5%
Et	Incorta administrative costs	$E1 * E2 * E3$	\$0	\$13,400	\$13,400	\$13,400
	Risk adjustment	5%				
Etr	Incorta administrative costs (risk-adjusted)		\$0	\$14,070	\$14,070	\$14,070
Three-year total: \$42,210			Three-year present value: \$34,990			

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	(\$131,250)	(\$1,368,570)	(\$1,368,570)	(\$1,368,570)	(\$4,236,960)	(\$3,534,681)
Total benefits	\$0	\$5,322,950	\$5,900,250	\$6,477,550	\$17,700,750	\$14,581,964
Net benefits	(\$131,250)	\$3,954,380	\$4,531,680	\$5,108,980	\$13,463,790	\$11,047,283
ROI						313%
Payback period						<3 months

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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."



PRESENT VALUE (PV)

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



NET PRESENT VALUE (NPV)

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



RETURN ON INVESTMENT (ROI)

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



DISCOUNT RATE

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



PAYBACK PERIOD

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

Appendix B: Endnotes

¹ Incorta data pipelines are simpler than the legacy ETL, due to the lack of needing to de-normalize or flatten data and build aggregate tables.

² Incorta combines data pipeline, database, semantic layer, and BI/analytics in one unified platform.

³ Incorta was architected from the ground up for query optimization, and it does not require the same query tuning and optimization as legacy SQL databases.

⁴ Source: "How To Build Your Company's Customer Obsession Strategy," Forrester Research, Inc., January 31, 2020.

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