

A Forrester Total Economic Impact™  
Study Commissioned By Virgin Pulse  
February 2020

# The Total Economic Impact™ Of Virgin Pulse

Cost Savings And Business Benefits  
Enabled By The Engage Platform

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## ABOUT FORRESTER CONSULTING

Forrester Consulting provides independent and objective research-based consulting to help leaders succeed in their organizations. Ranging in scope from a short strategy session to custom projects, Forrester's Consulting services connect you directly with research analysts who apply expert insight to your specific business challenges. For more information, visit [forrester.com/consulting](https://forrester.com/consulting).

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## Executive Summary

Virgin Pulse Engage provides a mobile-first well-being solution that instills healthy habits to help an organization's workforce achieve long-term health and productivity results. The Engage platform creates personalized experiences that meet employees where they are on their well-being journeys by integrating and analyzing employee data from multiple sources, including eligibility files, health assessments, biometrics, interests, platform usage, and more — all while maintaining the highest data privacy, security, and compliance standards.

Virgin Pulse commissioned Forrester Consulting to conduct a Total Economic Impact™ (TEI) study to examine the potential ROI enterprises may realize by deploying Engage. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact of Engage on their organizations. To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed four global self-insured customers with a range of 10,000 to 67,000 employees. The four Virgin Pulse customers have been using the platform for five to 10 or more years. Customer interviewees included executives with titles such as chief medical officer, global health and well-being director, and senior benefit manager.

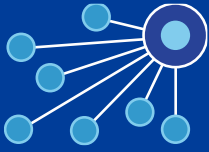
Prior to using Engage, interviewed customers faced an increasingly competitive hiring environment and rising healthcare costs combined with flatlined productivity. Early attempts at wellness programs were limited in scope, labor-intensive, and lacking in ability to deliver quantifiable employee health metrics.

### Key Findings

**Quantified benefits.** The following risk-adjusted present value (PV) quantified benefits are representative of those the interviewed companies experienced:

- › **Reduced employee attrition.** Interviewed executives reported employees who used Virgin Pulse were more engaged, which impacted tenure. Based on actual results, Forrester modeled a conservative 3% reduction in attrition rates. Using an annual 27% turnover rate and calculating 20% of an annual salary to account for the cost to recruit, hire, and train an employee, Forrester found a risk-adjusted savings of \$9,048,242 over three years.
- › **Reduced healthcare costs.** Healthcare costs are one of the largest and most difficult categories of expense to control. Executives reported a win just by keeping costs neutral or in line with the healthcare Consumer Price Index (CPI). One global well-being manager said, "Even if we can drop that trend down to just CPI — Consumer Price Index of 3% to 6% — we'll save hundreds of millions of dollars over time."
- › **Organizationwide productivity increases.** Many factors account for a company's ability to increase productivity; however, Forrester focused on one quantifiable metric: reduced absenteeism. The Engage platform impacts productivity by promoting the use of preventative healthcare and increasing awareness and utilization of programs like backup care benefits, resulting in a 14% productivity increase that yields a three-year risk adjusted total PV of \$6,655,413.

### Key Benefits



Avoided cost of employee attrition:

**\$9,048,242**



Reduced healthcare costs:

**\$8,280,615**



Avoided cost of fatigue-related mistakes:

**\$1,479,231**



**ROI**  
**162%**



**Benefits PV**  
**\$30.9 million**



**NPV**  
**\$19.1 million**



**Payback**  
**less than 3**  
**months**

- › **Decreased administration and communication cost.** Organizations were able to decrease their administrative expenses managing their wellness programs. Because Virgin Pulse provides a global solution offering culturally relevant content in localized languages, companies were able to administer their wellness programs using only Virgin Pulse, saving the cost of working with multiple wellness vendors. In addition, organizations reduced the dollars spent promoting employee benefits by leveraging the communication tools within the Virgin Pulse platform, leading to a three-year risk adjusted total PV of \$5,489,776.
- › **Reduced costs of fatigue-related mistakes.** The National Sleep Foundation estimates sleep-related fatigue costs for US businesses at \$150 billion a year.<sup>1</sup> A separate 2010 study found the average annual cost of fatigue-related errors is \$1,967 per employee.<sup>2</sup> Engage administrators validated that the reduction of fatigue-related sleep errors was 1.26%, directly attributable to engaging with the Virgin Pulse platform. This resulted in a three-year risk adjusted cost savings total PV of \$1,479,231.

**Unquantified benefits.** The interviewed organizations experienced the following benefits, which are not quantified for this study because the organizations did not track the data. However, if tracked and reported, these benefits would likely have contributed positively to the return on investment.

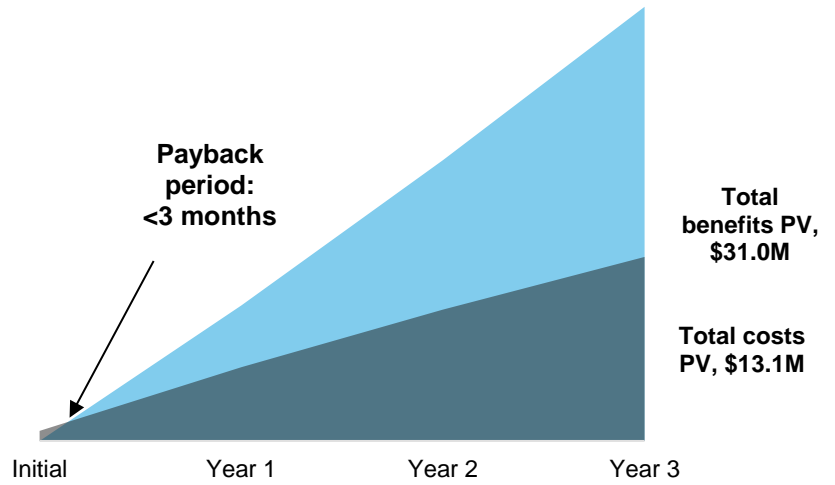
- › **More interest in high-deductible health plans.** Data from interviewed organizations showed that those who participate in the Engage program are more likely to choose a lower-cost, high-deductible plan. Given that most organizations offer a high-deductible plan as a way of lowering overall healthcare costs, this is an economic win.
- › **Increased participation in preventative care.** Based on the ability to capture sustained employee engagement levels, a resourceful use of the Engage platform is to promote the benefits of preventative care. By leveraging Engage to increase awareness of programs like biometric screenings or annual dental checkups, employees receive more preventative care, which can lower companies' future healthcare costs.
- › **Improved employee experience.** Whether the business is a hospital network delivering patient care or a software company producing consumer applications, having happier and more engaged employees has a positive downstream effect on customer experience. Forrester's customer experience research shows that a 1% increase in customer experience can deliver a large revenue impact.<sup>3</sup>

**Costs.** The interviewed organizations experienced the following risk-adjusted PV costs:

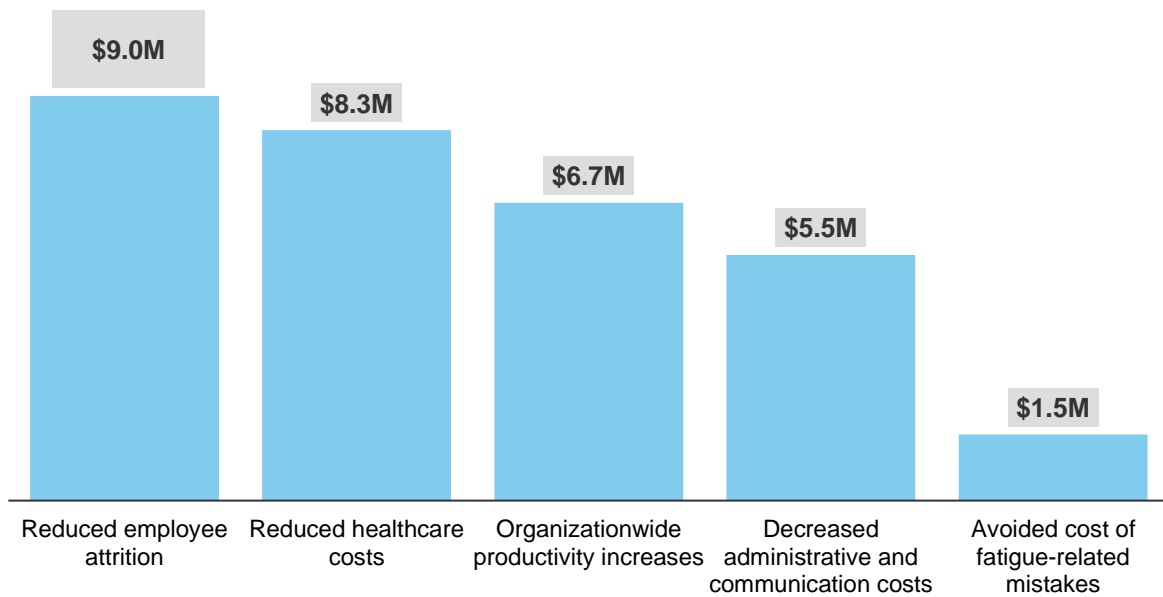
- › **Cost of the Engage platform, incentives, and activity trackers totaling \$11,622,577.** This represents the three-year present value (PV) total cost for 50,000 employees, including the cost of a tracking device for each employee and the cost of the incentive payouts.
- › **Deployment costs totaling a risk-adjusted \$193,200.** Companies paid a \$160,000 one-time deployment fee and miscellaneous costs for data feeds totaling \$24,000. Forrester then risk adjusted by 5%.

Forrester's interviews with four existing customers and subsequent financial analysis found that a composite organization based on these interviewed organizations experiences benefits of \$30,953,277 over three years versus costs of \$11,622,577, adding up to a net present value (NPV) of \$19,137,500 and an ROI of 162%.

## Financial Summary



## Benefits (Three-Year)



The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

## TEI Framework And Methodology

From the information provided in the interviews, Forrester has constructed a Total Economic Impact™ (TEI) framework for those organizations considering implementing the Virgin Pulse Engage 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 Engage can have on an organization:



### **DUE DILIGENCE**

Interviewed Virgin Pulse stakeholders and Forrester analysts to gather data relative to Engage.



### **CUSTOMER INTERVIEWS**

Interviewed four organizations using Engage 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 TEI elements in modeling the Virgin Pulse Engage platform's impact: benefits, costs, flexibility, and risk. 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 A for additional information on the TEI methodology.

## DISCLOSURES

Readers should be aware of the following:

This study is commissioned by Virgin Pulse 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 Virgin Pulse Engage.

Virgin Pulse 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.

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

# The Virgin Pulse Platform Customer Journey

## BEFORE AND AFTER THE ENGAGE PLATFORM INVESTMENT

### Interviewed Organizations

For this study, Forrester conducted four interviews with Virgin Pulse Engage customers. Interviewed customers include the following:

INDUSTRY	REGION	INTERVIEWEE	NUMBER OF ELIGIBLE LIVES
High-tech manufacturing	Headquartered in Idaho	- Global well-being manager - Director of global health and well-being	36,000
Government contracting	Headquartered in Massachusetts	- Chief medical officer - Senior manager, well-being	61,000
Healthcare	Headquartered in Washington	- Director, employee well-being	160,000
Software	Headquartered in California	- Senior benefit analyst	7,500

### Systems Of Support

In today's competitive job market, organizations are looking for ways to attract and retain employees. Candidates now expect their potential employers to utilize tools such as Engage to enable workers to perform at their best.

The Forrester report, "The Employee Experience Technology Ecosystem," labels such technologies that form the resources upon which employees rely to help them cope with the demands they face as systems of support.<sup>4</sup> The results of one academic study showed that stock values for a portfolio of companies that received high scores in a corporate health and wellness self-assessment appreciated by 235% compared with the S&P 500 Index appreciation of 159% over a six-year simulation period. The study concluded that robust investment in workforce health and well-being (e.g., systems of support) appears to be one of multiple practices pursued by high-performing, well-managed companies.<sup>5</sup> Companies like Virgin Pulse are addressing the physical, mental, and even spiritual needs of employees to lower healthcare costs and improve productivity and engagement.<sup>6</sup>



**Systems of support**  
*Help organizations nurture, monitor, and grow employees*

- Deliver core HR services
- Analyze how employees work
- Improve well-being
- Monitor performance and talent
- Foster learning and development
- Engage and listen to employees

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### Key Challenges

The companies Forrester interviewed were at different stages in their adoption of wellness programs, but most had been using Engage for over a decade. All interviewees said their HR organizations needed to support the business with a strong commitment to their employees. In addition, companies that had fully embraced wellness as a fundamental and mandatory benefit moved beyond needing to prove reduced healthcare costs as a way to fund these initiatives.

The global well-being director said: "Are we doing this Virgin Pulse



platform to try to save healthcare cost? That is probably at the bottom of the list. It's all about engagement, looking at someone holistically, and seeing how we can support them in all facets of their life. Because if we do that, they hopefully can show up with their best self; which, of course, benefits our organization."

Many of the organizations Forrester interviewed described challenges such as:

- › **Lack of a cohesive solution to address global needs.** Before Engage, organizations struggled to cobble together a set of wellness initiatives. They reported using ad hoc tools — some homegrown and many that human resources or wellness teams manually created. Multinational corporations face the added complexity of needing to create programs that reflect multiple cultures and languages, which quickly becomes overwhelming.
- › **Need for a must-have benefit to be competitive.** In today's hiring environment, it's not enough just to provide good healthcare or an employee assistance program (EAP). Companies need to consider the needs of the whole person, not just the employee. "This was the next step in the maturity of our organization," said the global well-being manager. "In a corporation of our size in the tech industry, there are certain things you must do to be relevant to future employees and current employees."
- › **Need to build sustained engagement.** Some interviewees reported that their previous wellness platforms didn't deliver the results they wanted from the programs. In one case, the program model was different and didn't drive sustained results. The chief medical officer explained: "People just had to do two things: They had to complete a health assessment and get their biometrics done onsite or by their doctor to earn \$250. We found they engaged once a year on average, and nobody explored anything else on the platform."

"Before Engage, there was a lot of manual creation by the benefits team. We were getting content from whatever credible source we could find. It was a tapestry of low-value content."

*Global well-being manager,  
high-tech manufacturer*



## Solution Requirements

The interviewed organizations searched for a solution that could:

- › **Meet the needs of a global organization.** Interviewed companies were looking for global capabilities, even if they were just beginning their expansion plans. The benefits team member at the high-tech manufacturer said: "We knew we needed something that could reach people, because it was an impossibility for us to do that as a team of two. We went to market looking for an engagement tool; a platform that could help us meet people where they were at, in the language that they spoke. We looked for something that was visually pleasing, aesthetically attractive, culturally relevant, and had the vibe and the kind of philosophy that we did."

"The administrative burden of running in many countries is overwhelming. We happen [to] manage nine countries, and it's a turnkey approach. We just popped up in Mexico, and within a month, we're live with Virgin."

*Senior benefit analyst, software*





› **Drive sustained engagement with the wellness platform.**

Interviewees revealed proof that the Engage platform can drive repeat visits by employees over a sustained period was a key factor in partnering with Virgin Pulse. Whether they are using the web portal or the mobile app, employees are drawn to the toolset by the promise of earning a financial incentive, but they keep coming back because of the life-enhancing content. The director of global health and well-being said: “The incentive has been nice to have, and it gets them interested initially. But what we’ve been able to do with the program is grow some interesting value in it. People return to the program because they like it, and it’s helping them make [a] sustainable behavior change.”

- › **Provide something for everyone.** Wellness programs are not just about improving your healthcare, meditating, or counting steps. They’re about providing employees the tools that allow them to address the worries that often distract them from doing their best work. The wellness team at the high-tech manufacturer explained: “We wanted a tool to help people at whatever stage they were at in their well-being journey, whether that was financial or social, community, [or] mental health. We decided to go with Virgin Pulse based on their philosophy around letting people choose their own path in the platform. We love the philosophy and approach that it didn’t feel clinical, but still had enough clinical information in it.”

## Key Results

The interviews revealed that key results from the Engage investment include:

- › **Culture change.** Engage was a major facilitator in driving culture change at the organizations. “Some of the biggest benefits we’ve seen is a change in the way people treat each other, driving an overall change in culture. People have an increased awareness of their well-being in general. We hear people talking about things like self-care and taking better care of each other. It’s given them new ways to connect, and we see people who [have] formed new communities. We have 36,000 engineers, [and] it’s changed the conversation by giving people a shared thing to talk about. The social interaction piece was something we had anticipated.” But the social changes will not happen unless employees make connections — such as forming walking groups or participating in group wellness challenges. In fact, prior to using Engage, the global well-being manager said: “The culture here is very hard-working and, prior to this, if you’re not at your desk 12 hours a day, you’re not perceived as working hard. [Engage] gave people permission to move.” Culture is not only face-to-face; online culture is very important too. Job seekers are looking at employment rating sites to learn the inside scoop on companies they’re applying to. HR professionals keep a close watch on what employees are saying about their culture and benefits.

“We go to sites like Glassdoor and look at what employees are saying about our company. For us, benefits always gets a top billing. Those are things that people look at when they’re looking to join a new company, what are people saying about the company, the culture, and the well-being?”

*Senior benefits analyst, software*



- › **Reduced healthcare costs.** Many factors account for a company reducing overall healthcare costs. For example, companies that introduce high-deductible plans or experience demographic shifts in covered populations may reduce their costs. Because of the scale of healthcare costs for interviewed companies, even slowing or keeping costs neutral year-over-year adds up tremendously. The chief medical officer for a government contractor said employees who actively used Engage spent less on medical care. “We did a study of our data warehouse within the last year, and it showed that those participating in the Virgin [Pulse] program, versus those who weren’t, had less medical spend.”
- › **Risk avoidance.** On average, the Engage platform connects over 60% of a company’s employees on a weekly basis with messages and information about ergonomics, environmental health, and safety programs, in addition to core well-being content. The high-tech manufacturer said: “Safety for us is huge because we love our humans, and we don’t want them to hurt themselves. From a business standpoint, if you’re operating a machine that costs \$40 million, and you have an extensive amount of material that will fail if *you* fail, people’s personal well-being should be of the utmost consideration in their efficiencies. Are they sharp? Are they the most collaborative? We want our programs to be consistently improving on this.” Engage allows organizations to target sleep and safety programs to those employees who have high-risk roles. One company earned a Liberty Mutual safety award thanks, in part, to its focus on promoting sleep and safety awareness through Engage.
- › **Increased enrollment in benefits programs beyond health insurance.** Benefits packages span beyond just healthcare. HR executives take great care to find and offer programs that will truly add value to the lives of their employees. EAP, dependent care, and financial counseling programs are just a few examples customers highlighted. However, many employees don’t take full advantage of these programs because they are unaware of them. With 60% of employees using the Engage platform at least weekly, HR professionals can more broadly promote their organizations’ benefits and programs through the platform. “We use it as a communication platform,” said the senior benefits analyst for a software company. “If you’re enrolled in the program, we’re pushing out messages through the app. So, it’s just one more way we can reach employees where they’re engaging on a daily or weekly basis. We’ve seen an increase in enrollment in a number [of] the programs beyond health insurance because of the Virgin [Pulse] hub.”

“Some of the tools that people operate cost \$10 million. If you think about it, at the end of the day, every person that’s not making a mistake is worth so much money.”

*Global well-being manager,  
high-tech manufacturer*



“We have some great success stories where people said, ‘Because of this program, I’ve lost 30 pounds, I’m no longer using a CPAP, and I’m off my medications.’ Engaged employees buy in that this is something that [the company] is doing that’s beneficial to them in their health, in their holistic being other than just their productivity.”

*Chief medical officer, government contractor*



“At the end of the day, it’s really making a difference in the team members’ lives. It’s changing the culture. It’s changing the way that they all view their own health, their own stress, [and] their own total well-being. They are connecting to each other in a way that they didn’t before. We are seeing that people who perform well in the portal [of the Engage platform] have a longer tenure here. More importantly, it’s connected to high performance, so it’s obviously a trait that is beneficial. This is one of those things we think makes [our company] a better place to work, for several reasons mostly related to culture. We hope it helps attract people coming here when they see the robust well-being program we have. Then it helps someone to stay because they’re connecting, they’re making friends, and they’re creating meaningful relationships that impact their well-being, whether they realize it or not.”

*Global well-being manager, high-tech manufacturer*



## Composite Organization

Based on the interviews, Forrester constructed a TEI framework, a composite company, and an associated ROI analysis that illustrates the areas financially affected. The composite organization is representative of the four 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, multibillion-dollar business-to-business organization provides product development, sales, customer support, and technical support for its manufacturing customers. The organization has a strong brand, global operations, and a large B2B customer base.

The organization is strongly committed to well-being, which ties to its HR mission of supporting employees to do their best work. The organization has a large HR department and a 25-member health and wellness team, which includes two employees who are solely dedicated to the Virgin Pulse program. In addition, there is a volunteer network of 50 wellness champions throughout various parts of the enterprise. Eighty-five percent of the employees are enrolled in Virgin Pulse Engage, and 60% are active users, which means they regularly visit the platform five times a week or more.



### Key assumptions:

- 50,000 employees
- 20 global locations
- Manufacturer industry
- 60% engaged employees
- 2 dedicated well-being FTEs

# 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	Reduced employee attrition	\$3,538,080	\$3,644,208	\$3,753,504	\$10,935,792	\$9,048,242
Btr	Reduced healthcare costs	\$1,624,320	\$3,394,829	\$5,321,760	\$10,340,908	\$8,280,615
Ctr	Organizationwide productivity increases	\$2,676,240	\$2,676,240	\$2,676,240	\$8,028,720	\$6,655,413
Dtr	Decreased administrative and communication cost	\$2,207,520	\$2,207,520	\$2,207,520	\$6,622,560	\$5,489,776
Etr	Avoided cost of fatigue-related mistakes	\$594,821	\$594,821	\$594,821	\$1,784,462	\$1,479,231
Total benefits (risk-adjusted)		\$10,640,981	\$12,517,618	\$14,553,844	\$37,712,443	\$30,953,277

## Reduced Employee Attrition

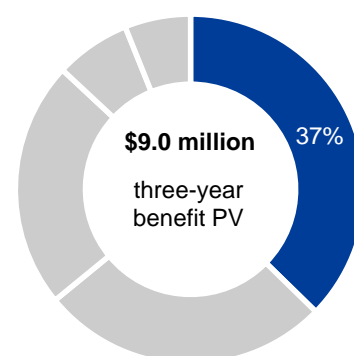
According to the interviewed organizations, employees who used Virgin Pulse were more engaged, which impacted their tenure. The executives noted during the interviews that measuring employee attrition is tricky, and many factors play into whether an employee stays or goes. For example, if the job market is strong, people are more likely to leave.

One director of well-being said 2019 was the first year his company tracked major employee retention factors such as whether supervisors care about employees' well-being or only their work. They also asked if employees feel there is time in their workday to focus on well-being. To date, they have experienced an uptick in positive responses: "Although these are softer [metrics], improving those obviously will improve your bottom line in terms of your whole talent pool management." The well-being content helps build a positive culture by signaling to employees that the company cares about their well-being.

Virgin Pulse provided data from the actual usage dashboards of the interviewed customers. In addition, to build out the model, Forrester assumed:

- › Manufacturers' attrition rates average 27% per year, based on the 2018 Mercer US Turnover Survey.<sup>7</sup>
- › There is a conservative 3% reduction in attrition rates, based on data that Virgin Pulse provided for one of the interviewed organizations.
- › The cost of hiring includes an additional 20% over the annual salary to account for the cost to recruit, hire, train, and ramp up the employee to full productivity.
- › Engage is responsible for 20% of costs savings, based on interviewed companies and their actual usage data from Virgin Pulse.

The table above shows the total of all benefits across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total benefits to be a PV of more than \$20.7 million.



Reduced employee attrition: 37% of total benefits

Because the ability to measure retention varied across interviewed organizations, and to account for the uncertainty in attribution, Forrester risk-adjusted this benefit downward by 20%, resulting in a final benefit of \$9,048,242.

### Reduced Employee Attrition: Calculation Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
A1	Annual manufacturing attrition rates	2018 Mercer US Turnover Survey	15%	15%	15%
A2	Reduction in attrition by employees using Engage	Client data	3%	3%	3%
A3	Total number of engaged employees	Total employees * 60%	30,000	30,000	30,000
A4	Average fully burdened salary of manufacturing employee	payscale.com	122,850	126,536	130,332
A5	Cost of employee attrition	20% of workers salary	24,570	25,307	26,066
A6	Total cost of employee turnover before Engage	$(A3 * A1) * A5$	110,565,000	113,881,500	117,297,000
A7	Total cost of employee turnover after Engage	$(A3 * (A1 - A2)) * A5$	88,452,000.00	91,105,200.00	93,837,600.00
A8	Percent reduction in attrition cost attributed to Engage		20%	20%	20%
At	Reduced employee attrition	$A6 - A7 * 20$	4,422,600.00	4,555,260.00	4,691,880.00
	Risk adjustment	↓20%			
Atr	Reduced employee attrition (risk-adjusted)		3,538,080.00	3,644,208.00	3,753,504.00

## Reduced Healthcare Costs

Organizations also experienced a reduction in overall healthcare costs. The Engage platform allows users to personalize their experiences by customizing preferences about the types of content that interests them. In addition, interviewed companies reported offering biometric screenings to measure things like glucose levels or body mass index. The user-level information is anonymous to the company, but the more the members engage with the platform, the more personalized the messages become. In part, due to the programs the Engage platform promotes, one organization reported a decrease in its overall healthcare costs. The company was able to reach its goal of bringing cost increases in line with the CPI of 6% growth. Other organizations reported being able to keep health costs flat.

The chief medical officer said: “We adopted the philosophy from D.W. Edington’s book *Zero Trends*: If you do a best-practice program with the right intervention and engagement in your program, the business case is that you can decrease your medical cost trend year-over-year. We were seeing anywhere from [a] 10% to 18% increase year-over-year for medical cost per employee. We said, ‘Even if we can drop that trend

Impact risk is the risk that the business or technology needs of the organization may not be met by the investment, resulting in lower overall total benefits. The greater the uncertainty, the wider the potential range of outcomes for benefit estimates.

down to just CPI, we'll save hundreds of millions of dollars over time.”<sup>8</sup>

The interviewee described how the organization conducted a rigorous evaluation of its year-over-year medical claims and evaluated conditions and case groupings that could be impacted by the well-being program. Analyzing more than five years of data, the company found a significant reduction in metabolic risk factors, metabolic syndrome risk factors through the biometric screening data, and a flattening curve on lifestyle diseases. The company was able to reduce the rising medical cost trend to nearly flat.

Two interviewees purposefully do not track medical expenses as an ongoing metric. Both indicated that their organizations have moved beyond the need to quantify this piece because their leadership recognizes the holistic cultural benefits Engage provides as being more important.

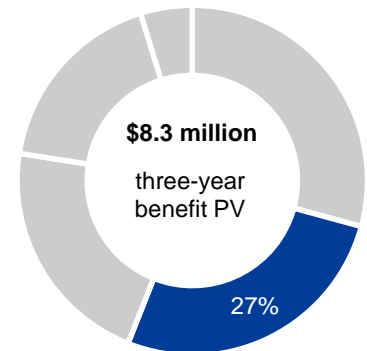
For the composite organization, Forrester assumes that:

- › Over three years, the company offers the same type of health plans and does not make a major shift to high-deductible plans.
- › All plans are individual plans. Because Forrester does not have the ratio of family plans to individual plans, the model reflects this conservative approach and assumes all are individual plans. Calculating the family plan numbers would increase this return.
- › The composite organization maintains the increase in costs at 3% versus the CPI's 6% rise.
- › Sixty percent of the avoided cost of increased healthcare expense is considered for the number of employees who use the platform consistently.
- › Engage is responsible for 20% of the avoided healthcare expenses, based on what we heard from the interviews.

The reduction in healthcare expenses will vary greatly depending on many factors, including:

- › The level of engaged employees within the organization.
- › The type of health plans the organization offers to its employees.
- › The demographic construction of the employee population.
- › The per-member, per-month cost of healthcare.

To account for these risks, Forrester further adjusted this benefit downward by 20%, yielding a three-year risk-adjusted total PV of \$8,280,615 million.



Reduced healthcare costs: 27% of total benefits

“We had a tobacco cessation program in place for six years. The total count of people who [had] never taken advantage of it was 1,500. But then that first month of pushing it through the Engage platform, we added 1,700 new lives who had taken advantage of it.”

*Senior benefits analyst, software*



## Reduced Healthcare Costs: Calculation Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
B1	Industry average employer contribution monthly	Costs for Individuals	\$564	\$564	\$564
B2	Number of covered lives	50000 employees	50,000	50,000	50,000
B3	Healthcare cost per year	B1*B2	\$338,400,000	\$338,400,000	\$338,400,000
B4	Rising costs of healthcare (expected cost of healthcare growth)	6% CPI	\$358,704,000	\$380,226,240	\$403,039,814
B5	Rising costs of healthcare (expected cost of healthcare growth with platform)	3% CPI	\$348,552,000	\$359,008,560	\$369,778,817
B6	Rising costs of Healthcare for engaged employees	B4-B3	\$10,152,000	\$21,217,680	\$33,260,997
B7	Percent reduction in healthcare cost attributed to Engage	20%	20%	20%	20%
Bt	Reduced healthcare costs		\$2,030,400	\$4,243,536	\$6,652,199
	Risk adjustment	↓20%			
Btr	Reduced healthcare costs (risk-adjusted)		\$1,624,320	\$3,394,829	\$5,321,760



## Organizationwide Productivity Increases

The benefits manager at the software firm explained the impact the organization achieved through its wellness programs: “We’ve described the mission of our wellness programs as being able to do your best work, removing the barriers of life so you can truly come in and concentrate, being proactive, [and] being productive. If you’re stressed out about your or your family’s health, nothing is going to make you engaged at work. When employees are taking charge of their health and well-being and get to a place where they are actively managing their health, people will be engaged, do the best work of their life, and contribute to the bottom line.”

Reducing absenteeism is a concrete example of the impact the Engage platform has on employee productivity. The chief medical officer described how the utilization of the company’s backup care programs has steadily increased: “We started putting our backup care and elder care links on the Virgin Pulse platform. We subsidize backup care [and] emergency backup care for children, adults, and elder parents you might be caring for. Employees can have a backup care benefit of up to 20 days, giving them [the] flexibility they need for their families. Because of the increased awareness, the utilization of that program has gone up every year for the past four years.”

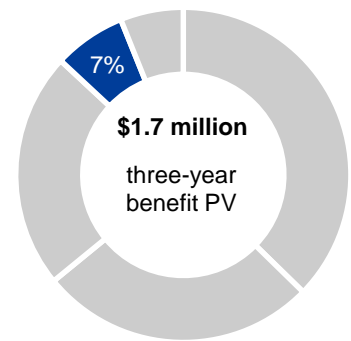
The composite organization increased overall employee productivity by leveraging the Engage platform. This model assumes:

- › Many factors contribute to productivity. In line with our conservative model, Forrester is using a major factor: time out of work.
- › On average, employees take 27 sick hours each year, based on data from the US Bureau of Labor statistics.<sup>9</sup>
- › Productivity increases by 14%, based on actual client case study data provided by Virgin Pulse.
- › Of the 50,000 employees, 60% are actively using the Engage platform.
- › Because not all time regained will be reutilized for productive work, there is a 50% productivity recapture rate. Forrester derived this metric from research findings.

The results will vary upon factors such as:

- › Productivity increases (depending on existing company culture and employee utilization of the program).
- › Fully burdened hourly rate.

To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year risk-adjusted total PV of \$6,655,413.



Organizationwide productivity increases: 7% of total benefits

“I spend 1% of my healthcare budget on employee communications. Programs cost \$150 million+ so 1% is not a small amount of money. When I look at everything we communicate to employees about, my campaign hits more people because we’re pushing it through Virgin Pulse. As an example, when an employee clicks into their app today, they will see a meme for flu shot. That kind of global marketing saves a lot of money when it comes to communication.”

*Senior benefits analyst, software*



## Organizationwide Productivity Increases: Calculation Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
C1	Average number of sick hours taken	27	27	27	27
C2	Fully burdened hourly rate	payscale.com	\$59	\$59	\$59
C3	Productivity improvement due to Engage	14% savings	14%	14%	14%
C4	Total number of engaged employees	50,000 employees *60%	30,000	30,000	30,000
C5	Productivity recapture	Forrester best practice	50%	50%	50%
Ct	Organizationwide productivity increases		\$3,345,300	\$3,345,300	\$3,345,300
	Risk adjustment	↓20%			
Ctr	Organizationwide productivity increases (risk-adjusted)		\$2,676,240	\$2,676,240	\$2,676,240

## Decreased Administrative And Communication Cost

Interviewees described two facets of administrative benefits they received by using Engage. First, because of the program's global capabilities, companies were able to decrease the administrative burden of managing multiple vendors from around the world or needing local team members to pull together custom and culturally relevant content.

Second, the program has essentially replaced most or all of the wellness marketing campaigns that organizations previously sent out. The cost of designing, printing, and postage for every benefit that an organization offers and the costs of executing a communication campaign quickly multiply.

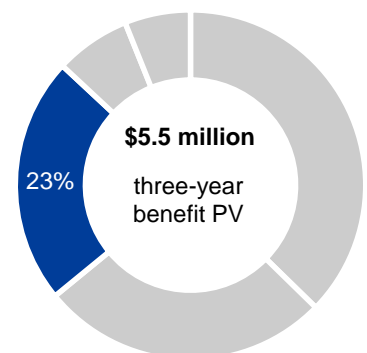
The composite organization decreases the cost of communications and reduces the need to hire local administrators in each global office by using the Engage platform and leveraging its global functionality. The model assumes:

- › A cost savings of 1% of the total budget for health insurance for the organization.
- › The platform reaches 60% of the employee population that is actively engaged.
- › Across 20 global offices, 18 team members are considered avoided hires due to the capabilities of Engage. Forrester accounted for 50% of this team's time, which would have been spent administering the Engage platform.

The results will vary depending on factors such as:

- › How many times an organization typically communicates with its employees using Engage.
- › The number of countries where an organization operates.
- › The cost of the administrator salaries.

To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year risk-adjusted total PV of \$5,489,776.



**Decreased administrative and communication cost: 23% of total benefits**

## Decreased Administrative And Communication Costs: Calculation Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
D1	Avoided cost of mailings for benefits communication	1% of insurance costs	1%	1%	1%
D2	Insurance costs	B3	\$338,400,000	\$338,400,000	\$338,400,000
D3	Number of engaged employees	60%	60%	60%	60%
D4	Number of avoided employees managing wellness globally	18 employees with 50% of their time dedicated to wellness	18	18	18
D5	Average fully burdened salary of a program administrator	$(\$81,000 * 50\%) * D4$	\$729,000	\$729,000	\$729,000
Dt	Decreased administrative and communication costs	$(D1 * D2 * D3) + D5$	\$2,759,400	\$2,759,400	\$2,759,400
	Risk adjustment	↓20%			
Dtr	Decreased administrative and communication costs (risk-adjusted)		\$2,207,520	\$2,207,520	\$2,207,520

## Avoided Cost Of Fatigue-Related Mistakes

The National Sleep Foundation estimates sleep-related fatigue costs US businesses \$150 billion a year.<sup>10</sup> In a Forrester survey of 2,087 US workers employed more than 30 hours per week, 46% responded they wanted to manage their health by increasing their sleep.<sup>11</sup>

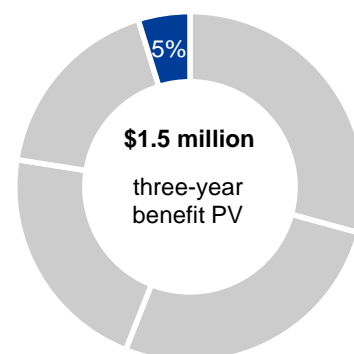
The composite organization decreases the financial impact of fatigue-related mistakes by reducing employee fatigue through the Virgin Pulse Engage platform. The model assumes:

- › The average annual cost of fatigue-related mistakes is \$1,967 per American employee. This number comes from a 2010 study by Rosekind *et al.*, which examined the financial impact of fatigue across industries.<sup>12</sup>
- › A conservative estimate for fatigue reduction directly attributable to the Virgin Pulse platform is 1.26%. This number was derived from a survey of existing literature on Virgin Pulse users and was validated by Virgin Pulse platform administrators.
- › A reduction in fatigue will vary linearly with a reduction in the cost of fatigue-related errors. It is possible that initial reductions in fatigue will have an outsized effect on errors, which would result in additional savings beyond those predicted by a linear model.

The results will vary depending on such factors as:

- › Cost of fatigue-related errors per employee by industry. Some industries, such as medical or industrial, may have considerably higher costs directly attributable to fatigue.
- › The measure of decrease in fatigue attributable to Virgin Pulse Engage, which may vary depending on existing company culture.

To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year risk-adjusted total PV of \$1,479,231



Avoided cost of fatigue-related mistakes: 5% of total benefits

## Avoided Cost Of Fatigue-Related Mistakes: Calculation Table

Ref.	Metric	Calculation	Year 1	Year 2	Year 3
E1	Cost of fatigue-related errors per employee	<i>Rosekind et al 2019</i>	\$1,967	\$1,967	\$1,967
E2	Eligible employees		50,000	50,000	50,000
E3	Percent engaged employees		60%	60%	60%
E4	Reduction in employee fatigue due to Engage	1.26%	1.26%	1.26%	1.26%
Et	Avoided cost of fatigue-related mistakes	$E1 \times E2 \times E3 \times E4$	\$743,526	\$743,526	\$743,526
	Risk adjustment	↓20%			
Etr	Avoided cost of fatigue-related mistakes (risk-adjusted)		\$594,821	\$594,821	\$594,821

## Unquantified Benefits

In addition to the results highlighted above, the interviewees shared additional benefits that did not have measured financial implications but provided intangible value to their companies in the following ways:

- Increased interest in high-deductible health plans.** Health plan selection has a direct effect on the healthcare expense bottom line, and high-deductible plans presumably cost an organization less than other plans. The global well-being manager said, “We are able to look at health plan selection — high-deductible versus a coordinated care plan — and we can see that people who have higher participation in Virgin Pulse are more likely to choose a high-deductible health plan.”
- Increased participation in preventive care.** When there is high participation with the Engage platform, it’s a great vehicle to promote the benefits of preventive care. One interviewee said the organization uses the platform and its financial incentives to push preventive care where most needed. “We are very steady in our healthcare costs, and we tend to be lower than [the average] in certain areas. One reason is we incent for preventive health exams. There definitely has been increased participation in preventive care.”
- Improved employee experience.** A study conducted by Maersk Line found that 35% of customer satisfaction stems from employee engagement.<sup>13</sup> One interviewee described how this translates in the healthcare industry: “We’re looking at the caregiver experience or the employee experiences, equal to the patient experience. In other words, if our caregivers come to work and they’re happy and engaged, healthy [and] at the top of their well-being game per se, they’re going to deliver excellent patient care. Those patient outcomes are going to be better, [with] less mistakes and [fewer] injuries. Patients are going to rate us very highly in the market and have more brand loyalty for the organization and, in turn, the bottom line of the organization is going to be improved.”



More participation in preventive care = lower healthcare costs

## Flexibility

The value of flexibility is clearly unique to each customer, and the measure of its value varies from organization to organization. There are multiple scenarios in which a customer might choose to implement Engage and later realize additional uses and business opportunities, including:

- › **Improved collaboration to promote key messages and programs.** One global health and well-being manager said: “We are always trying to find ways to connect more programming to [Engage]. We have a ton of people paying attention to it, and it’s a monster for engagement for us — in a good way! Future-looking, we’re evaluating our program portfolio to understand what’s underperforming [and what] we could connect to the portal.”
- › **Reduced time out of work for disability claims.** Having the opportunity to reduce disability claims offers a huge opportunity for organizations to save not only in the claims they pay out, but also in the corresponding insurance rates. “We have been talking about doing a pilot using Virgin Pulse with our disability colleagues,” said the global well-being director. “If we keep people engaged while they’re out on disability, we hope to return them to work faster.”
- › **Time saved for HR executives.** The chief medical officer told us how Engage helps save her valuable time in vetting new health-related partners: “In my role, I get so many calls from various vendors for new apps or offerings around muscle, skeletal, diabetes care, etc. Virgin Pulse is already aligned with vendors and products so, in a sense, they vet some vendors and introduce potential new partners for us. There is no way I can vet all of them. It’s so much easier that Virgin Pulse has done that initial vetting.”

Flexibility, as defined by TEI, represents an investment in additional capacity or capability that could be turned into business benefit for a 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.

“Sometimes you do see a financial ROI. But truly, our employees love our wellness programs. When we talk to our employees about what matters to them, wellness is always top of mind — being more financially secure or not being so stressed or getting in the best shape of their lives. All of that is something that they talk about, and [Engage is] a program that [is] really very well-loved.

*Senior benefit analyst, software*



# 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
Ftr	Engage program costs	\$525,000	\$4,462,500	\$4,462,500	\$4,462,500	\$13,912,500	\$11,622,577
Gtr	Deployment costs	\$193,200	\$0	\$0	\$0	\$193,200	\$193,200
	Total costs (risk-adjusted)	\$718,200	\$4,462,500	\$4,462,500	\$4,462,500	\$14,105,700	\$11,815,777

## Engage Program Costs

Companies pay Virgin Pulse depending on the level they chose to support their employees. Those considerations include:

- › The cost for the eligible employee.
- › The cost of supplying an optional activity tracking device such as the Virgin Pulse MaxBuzz.
- › The potential to offer a cash incentive and the amount of that incentive.

The composite organization pays:

- › The composite organization paid for a device for each employee at the initial startup of the program.
- › A per license cost for each eligible employee
- › An incentive budget was allocated for each employee.
- › 60% of the incentive budget was utilized by eligible employees and included in the total three-year PV cost of \$11,815,777.

These costs will vary depending on the negotiated rates and incentive choices each organization makes. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year risk-adjusted total PV of \$11,815,777.

The table above shows the total of all costs across the areas listed below, as well as present values (PVs) discounted at 10%. Over three years, the composite organization expects risk-adjusted total costs to be a PV of more than \$11.8 million.

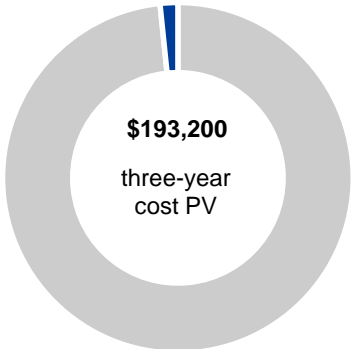
### Engage Program Costs: Calculation Table

Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
F1	Number of employees		50,000	50,000	50,000	50,000
F2	Fees paid to Virgin Pulse		\$500,000	\$1,250,000	\$1,250,000	\$1,250,000
F3	Percent employees engaged		60%	60%	60%	
F4	Average incentive payout per engaged employee	$(F1 * F3) * \$100$		\$3,000,000	\$3,000,000	\$3,000,000
Ft	Virgin Pulse program costs	$F2 + F4$	\$500,000	\$4,125,000	\$4,125,000	\$4,125,000
	Risk adjustment	↑5%				
Ftr	Virgin Pulse program costs (risk-adjusted)		\$525,000	\$4,462,500	\$4,462,500	\$4,462,500

## Deployment Costs

In addition to the fees above, interviewed organizations paid \$160,000 in one-time implementation fees. They also paid a nominal cost for data feeds for outside programs they ported into the platform.

Depending on the existing infrastructure and the number of programs connected to Virgin Pulse, these fees may vary. To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year risk-adjusted total PV of \$193,200.



Deployment costs: 2% of total costs

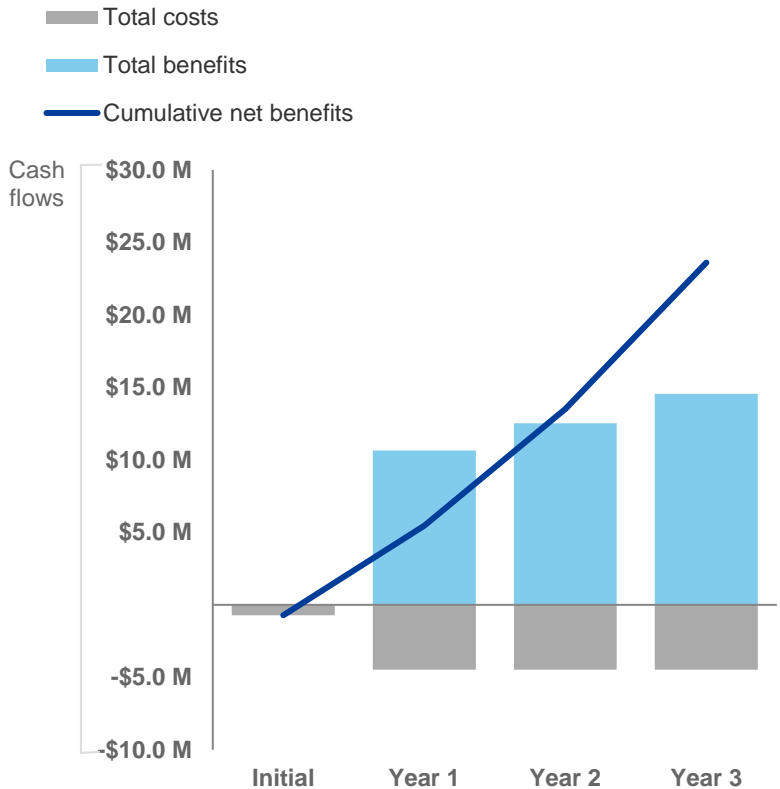
Deployment Costs: Calculation Table						
Ref.	Metric	Calculation	Initial	Year 1	Year 2	Year 3
G1	Deployment costs	\$160,000	\$160,000			
G2	Data feeds	\$8,000	\$8,000			
G3	Number of programs	3 different programs	3			
G4	Total costs for data feeds	$G2 * G3$	\$24,000			
Gt	Deployment costs	$G1 + G4$	\$184,000	\$0	\$0	\$0
	Risk adjustment	↑5%				
Gtr	Deployment costs (risk-adjusted)		\$193,200	\$0	\$0	\$0



# 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	(\$718,200)	(\$4,462,500)	(\$4,462,500)	(\$4,462,500)	(\$14,105,700)	(\$11,815,777)
Total benefits	\$0	\$10,640,981	\$12,517,618	\$14,553,844	\$37,712,443	\$30,953,277
Net benefits	(\$718,200)	\$6,178,481	\$8,055,118	\$10,091,344	\$23,606,743	\$19,137,500
ROI						162%
Payback period (months)						<3

# Virgin Pulse Engage: Overview

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

Virgin Pulse Engage is a total health engagement solution that supports employers and health plans in improving well-being, reducing healthcare costs, and strengthening workforce cultures by engaging and supporting members along the entire well-being, health, and healthcare continuum. Engage combines more than a decade of experience and the latest behavioral and clinical science with powerful AI and digital capabilities, embedded habit-building tools, social features, and deeply integrated live services to help users build and sustain healthy habits and lifestyles, every day.

Through its hub ecosystem, Engage helps clients unlock the value of their existing programs and benefits by making it easy to connect those programs into one comprehensive, integrated member experience. Globally available in 20 languages, Engage is backed by an industry-leading data security and privacy framework.

# Appendix A: Total Economic Impact

Total Economic Impact is a methodology developed by Forrester Research that enhances a company's technology decision-making processes and assists vendors in communicating the value proposition of their products and services to clients. The TEI methodology helps companies demonstrate, justify, and realize the tangible value of IT initiatives to both senior management and other key business stakeholders.

## Total Economic Impact Approach



**Benefits** represent the value delivered to the business by the product. The TEI methodology places equal weight on the measure of benefits and the measure of costs, allowing for a full examination of the effect of the technology on the entire organization.



**Costs** consider all expenses necessary to deliver the proposed value, or benefits, of the product. The cost category within TEI captures incremental costs over the existing environment for ongoing costs associated with the solution.



**Flexibility** represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made. Having the ability to capture that benefit has a PV that can be estimated.



**Risks** measure the uncertainty of benefit and cost estimates given: 1) the likelihood that estimates will meet original projections and 2) the likelihood that estimates will be tracked over time. TEI risk factors are based on "triangular distribution."

The initial investment column contains costs incurred at "time 0" or at the beginning of Year 1 that are not discounted. All other cash flows are discounted using the discount rate at the end of the year. PV calculations are calculated for each total cost and benefit estimate. NPV calculations in the summary tables are the sum of the initial investment and the discounted cash flows in each year. Sums and present value calculations of the Total Benefits, Total Costs, and Cash Flow tables may not exactly add up, as some rounding may occur.



### Present value (PV)

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



### Net present value (NPV)

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



### Return on investment (ROI)

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



### Discount rate

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



### Payback period

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

## Appendix B: Endnotes

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- <sup>1</sup> Source: “Sleep, Performance & the Workplace,” The National Sleep Foundation ([https://www.sleepfoundation.org/sites/default/files/sleepcarecenters/Sleep\\_Performance\\_the\\_Workplace.ppt](https://www.sleepfoundation.org/sites/default/files/sleepcarecenters/Sleep_Performance_the_Workplace.ppt)).
- <sup>2</sup> Source: Mark R. Rosekind, Kevin B. Gregory, Melissa M. Mallis, Summer L. Brandt, Brian Seal, and Debra Lerner, “The Cost of Poor Sleep: Workplace Productivity Loss and Associated Costs,” *Journal of Occupational and Environmental Medicine*, January 2010 ([https://journals.lww.com/joem/Abstract/2010/01000/The\\_Cost\\_of\\_Poor\\_Sleep\\_Workplace\\_Productivity.13.aspx](https://journals.lww.com/joem/Abstract/2010/01000/The_Cost_of_Poor_Sleep_Workplace_Productivity.13.aspx)).
- <sup>3</sup> Source: “The ROI Of CX Transformation,” Forrester Research, Inc., August 15, 2019.
- <sup>4</sup> Source: “The Employee Experience Technology Ecosystem,” Forrester Research, Inc., February 14, 2019.
- <sup>5</sup> Source: Jessica Grossmeier, Ray Fabius, Jennifer P. Flynn, Steven P. Noeldner, Dan Fabius, Ron Z Goetzel, and David R. Anderson, “Linking Workplace Health Promotion Best Practices and Organizational Financial Performance,” 2015 (<https://pdfs.semanticscholar.org/4312/23de761b5e584aad24ea2d04c89c9fe51b81.pdf>).
- <sup>6</sup> Source: “The Employee Experience Technology Ecosystem,” Forrester Research, Inc., February 14, 2019.
- <sup>7</sup> Source: Theresa Agovino, “To Have and to Hold,” *All Things Work*, February 23, 2019 (<https://www.shrm.org/hr-today/news/all-things-work/pages/to-have-and-to-hold.aspx>).
- <sup>8</sup> Dee W. Edington, *Zero Trends: Health as a Serious Economic Strategy*, Health Management Research Center, 2009.
- <sup>9</sup> Source: “Labor Force Statistics from the Current Population Survey,” U.S. Bureau of Labor Statistics (<https://www.bls.gov/cps/cpsaat47.htm>).
- <sup>10</sup> Source: “Sleep, Performance & the Workplace,” The National Sleep Foundation ([https://www.sleepfoundation.org/sites/default/files/sleepcarecenters/Sleep\\_Performance\\_the\\_Workplace.ppt](https://www.sleepfoundation.org/sites/default/files/sleepcarecenters/Sleep_Performance_the_Workplace.ppt)).
- <sup>11</sup> Source: Forrester Analytics Consumer Technographics® North American Healthcare And Government Benchmark Recontact Survey, Q3 2017 (US).
- <sup>12</sup> Source: Mark R. Rosekind, Kevin B. Gregory, Melissa M. Mallis, Summer L. Brandt, Brian Seal, and Debra Lerner, “The Cost of Poor Sleep: Workplace Productivity Loss and Associated Costs,” *Journal of Occupational and Environmental Medicine*, January 2010 ([https://journals.lww.com/joem/Abstract/2010/01000/The\\_Cost\\_of\\_Poor\\_Sleep\\_Workplace\\_Productivity.13.aspx](https://journals.lww.com/joem/Abstract/2010/01000/The_Cost_of_Poor_Sleep_Workplace_Productivity.13.aspx)).
- <sup>13</sup> As per Forrester’s “Introducing Forrester’s Employee Experience Index,” employee engagement is the emotional commitment the employee has to the organization and its goals. Engaged employees are more willing to go above and beyond their job descriptions. Source: “Introducing Forrester’s Employee Experience Index,” Forrester Research, Inc., June 21, 2019. Source: Christine Drud Von Haffner “Keep customers happy — by keeping the employees happy,” *Maersk Post*, February 2012 (<http://preview.thenewsmarket.com/Previews/MAER/DocumentAssets/228266.pdf>).