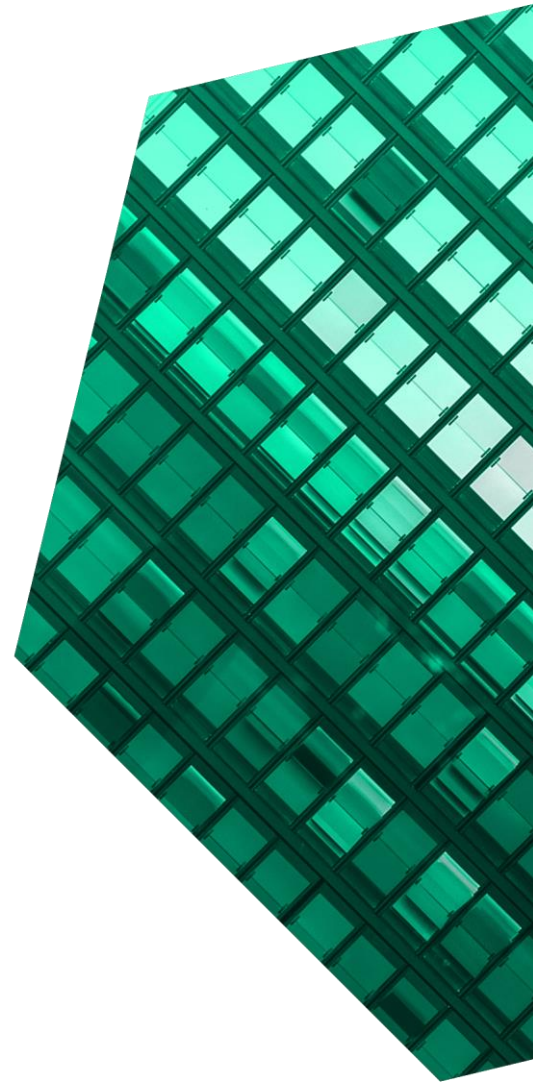**FORRESTER®**

# The Total Economic Impact™ Of MURAL

Cost Savings And Business Benefits
Enabled By MURAL and Digital Collaboration Enablement

**MAY 2022**

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# Executive Summary

MURAL connects teams through a visual collaboration platform, which includes online whiteboard and facilitation features. This allows for meetings and workshops to be conducted in remote and hybrid settings. Key benefits of the MURAL investment include improved UX design efficiency, captured business value of projects MURAL enabled, and reduced travel costs in a hybrid environment.

MURAL is a digital whiteboard platform that allows teams to collaborate virtually across an organization, using methods from in-person workshops while providing additional functionality and collaboration insights. Facilitators use MURAL to walk participants through exercises on a shared, digital canvas, allowing them to lead virtual or hybrid workshops. Individual participants can interact by adding "sticky notes" and other content within parameters the facilitator sets.

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

To better understand the benefits, costs, and risks associated with this investment, Forrester interviewed seven decision-makers and collaboration designers of an organization who have experience using MURAL within SAP. Forrester used these experiences to project a three-year financial analysis.

Prior to using MURAL, the interviewees noted how SAP attempted to use several tools to improve its design process and collaboration. However, prior attempts yielded limited success, leaving the organization with low engagement and longer project timelines.

**KEY STATISTICS**

Return on investment (ROI)
**404%**

Net present value (NPV)
**$47.29M**

After the investment in MURAL, SAP improved employee efficiency, enhanced project quality, and planned on reduced travel in a hybrid work environment.

**KEY FINDINGS**

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

- **Presales improved efficiency of 9.6%.** MURAL enabled presales employees to have shorter, more efficient calls with potential customers, saving 9.6% of their time for higher-value tasks. Over three years in a hybrid work environment, this will provide almost $7.8 million in value to SAP.

- **Client solution design improved efficiency of 10%.** Client solution employees in the Cloud Success Services group reduced project rework and worked more asynchronously, shortening

project length by a matter of weeks and allowing them to have 10% more capacity than before. Over three years in a hybrid work environment, this will provide over $21.8 million in value to SAP.

- **Internal solution design improved efficiency of 9.9%.** UX designers working on internal SAP services reduced project rework by a third and gained 9.9% efficiency by using MURAL to facilitate their design workshops. Better alignment and understanding of end-user needs during the beginning phases of a project enabled this efficiency, resulting in less rework and difficulty in the later phases of a project. Over three years in a hybrid work environment, this will provide nearly $6.5 million in value to SAP.

**"I still remember all those times using a flipchart or brown paper on the wall, and you would lose all the stickies. Now, with MURAL, you can seamlessly continue where you started. The preparation, cleanup, and wrap-up effort is much faster. I haven't seen someone sending out workshop documents for ages. They just send out the MURAL link."** — *Head of user experience IT*

- **Employee onboarding improved efficiency.** Using MURAL shortened new employee onboarding by two to three hours, and facilitators saved an additional estimated three hours in reduced preparation time for workshops. Over

**"Dropping MURAL to go back to [other tools] would basically be like going back in time."** — *Director of design strategy and systems*

three years in a hybrid work environment, this will provide more than $1.4 million in value to SAP.

- **Business value of projects enabled by MURAL.** An estimated 10% of custom design projects would not have been possible to complete in a hybrid world without using MURAL for remote collaboration. Over three years in a hybrid work environment, this will provide about $2.0 million in value to SAP.

- **Avoided travel costs in hybrid work environment.** While travel costs are expected to generally be lower in a hybrid work environment, MURAL allows for effective remote collaboration, further reducing travel requirements. Over three years in a hybrid work environment, this will provide more than $19.5 million in value to SAP.

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

- **More inclusive input.** Most interviewees mentioned that they were able to capture input from a wider variety of sources than before their adoption of MURAL. Many reported that employees, who were previously reluctant to speak up in large group discussions, found it easier to share their input with MURAL and their input was often extremely valuable to the success of a project.

> **"I can't imagine having a virtual workshop without a tool like MURAL. I don't know how we would get anything meaningful out of our time."** — *Head of user experience IT*

> **"The whole idea [with MURAL] is solid. The customer enjoyed it. They feel like we are teaching them something beyond selling them software. Simply the opportunity to have a conversation through [the MURAL platform] changed the whole buying experience for the customer."** — *Global learning business partner*
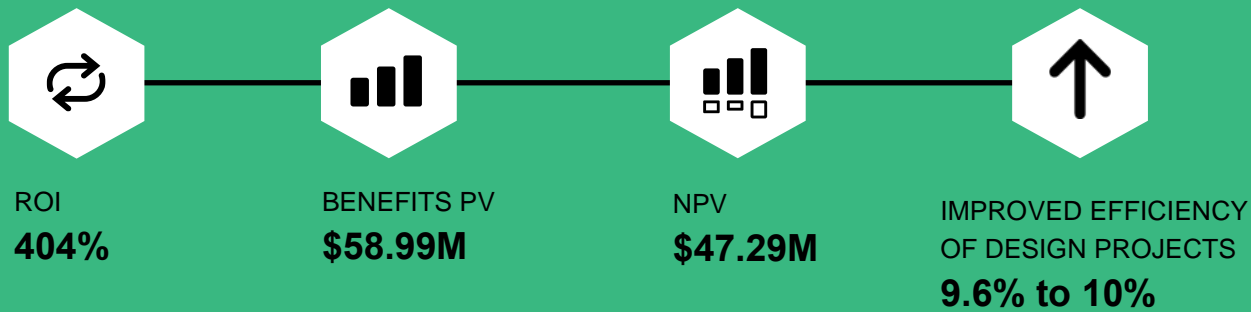
- **Lower UX designer attrition.** MURAL had a visible impact on reducing UX designer attrition in groups working on internal SAP tools. It was hypothesized that MURAL provided this benefit by making communication in the design process clearer and thus avoiding wasted effort and rework. A director of design strategy and systems overseeing the group noted that attrition would likely increase if designers no longer used MURAL.

**Costs.** Risk-adjusted PV costs include:

- **MURAL license and support costs.** The largest cost associated with MURAL for SAP is the annual license and support costs. Over three years in a hybrid work environment, this will cost SAP less than $9.2 million.

- **Facilitator training.** Facilitators leading workshops with MURAL need approximately 8 hours initially to become fully proficient and migrate their materials. Over three years in a hybrid work environment, this will cost SAP less than $2.5 million.

The interviews and financial analysis found that the decision-makers' organization experiences benefits of $58.99 million over three years versus costs of $11.70 million, adding up to a net present value (NPV) of $47.29 million and an ROI of 404%.

| | | | |
|---|---|---|---|

**ROI**
**404%**

**BENEFITS PV**
**$58.99M**

**NPV**
**$47.29M**

**IMPROVED EFFICIENCY OF DESIGN PROJECTS**
**9.6% to 10%**

### Benefits (Three-Year)

| Category | Value |
|---|---|
| Presales improved efficiency | $7.8M |
| Client solution design improved efficiency | $21.8M |
| Internal solution design improved efficiency | $6.5M |
| Employee onboarding improved efficiency | $1.4M |
| Business value of projects enabled by MURAL | $2.0M |
| Avoided travel costs in hybrid work environment | $19.5M |

"

# Taking MURAL away would be like taking away my computer. This is something that I really need for work.

*— Innovation manager*

## 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 MURAL.

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 MURAL can have on an organization.

**DISCLOSURES**

Readers should be aware of the following:

This study is commissioned by MURAL 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 study to determine the appropriateness of an investment in MURAL.

MURAL 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.

MURAL provided the customer name for the interview but did not participate in the interview.

**DUE DILIGENCE**
Interviewed MURAL stakeholders and Forrester analysts to gather data relative to MURAL.

**DECISION-MAKER INTERVIEWS**
Interviewed seven decision-makers at SAP using MURAL to obtain data with respect to costs, benefits, and risks.

**FINANCIAL MODEL FRAMEWORK**
Constructed a financial model representative of the interviews using the TEI methodology and risk-adjusted the financial model based on issues and concerns of the decision-makers.

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

# The MURAL Customer Journey

■ Drivers leading to the MURAL investment

### Interviewed Decision-Makers

| Interviewee | Region | Practice Area | MURAL use case |
| --- | --- | --- | --- |
| Innovation manager | Europe | Design thinking | Internal and external training on design thinking |
| Market unit leader | North America | Cloud success services | External project design and management |
| Global learning business partner | Europe | Presales and customer success | Presales discovery engagement |
| Director of design strategy and systems | Europe | Strategy and systems processes | Product line design and development |
| UX designer | Europe | UX design | Design workshops for internal services |
| Head of user experience IT | Europe | UX design | Design workshops for internal services |
| Senior global director | North America | Digital transformation | Coordination for development of custom solutions |

### KEY CHALLENGES

Prior to their investment in MURAL, SAP business leaders and designers used a variety of tools for both online workshops and more traditional in-person workshops.

The interviewees noted how SAP struggled with common challenges, including:

- **Project inefficiency.** Interviewees mentioned that both design projects and employees had difficulty with efficiency as workshops were difficult to schedule and execute, causing timelines to be longer than optimal.

- **Heavy labor burden on facilitators.** Interviewees noted that facilitators often had to spend hours preparing for workshops and then additional hours after workshops consolidating notes, preparing summaries, and sending out mass emails.

- **Large amounts of rework needed after workshops.** Facilitators were required to transfer details from dozens or even hundreds of pieces of paper to a digital format after in-person workshops. During this process, some notes would inevitably be lost. In addition, notes from online workshops were often insufficient, resulting in participants taking away different ideas of what next steps should be, and requiring the scheduling of additional meetings to align teams.

- **Difficulty in driving engagement from all workshop participants.** Moderators noted challenges in involving all participants during in-

> **"[Before MURAL], we would have virtual meetings. We would talk a lot, but there was no record of what we discussed. This was dangerous because then four people go off with four different ideas of what we agreed on."** —
> *Head of user experience IT*

person and online workshops. While diversity of input was highly valued by the group, the eagerness of some participants to engage could make this difficult to achieve. This presented obstacles for the moderator in collecting input and ideas that reflected the whole group.

- **Expensive travel costs.** Business leaders were often forced to decide which workshops were important enough to justify the cost of in-person travel. Because of this, in-person workshops tended to be infrequent and project work was either delayed or not possible.

**"In one project I'm working on today, there's two product managers in Germany, there's a VP of design in California, three people in Shanghai, and two people in Bengaluru. Before MURAL, we would have to fly these people somewhere or we would have 300 emails going back and forth and iterations phone calls day and night."** — *Director of design strategy and systems*

- **Video-conferencing fatigue.** Facilitators struggled to keep participants engaged during online workshops and mentioned that the quality of online workshops was significantly lower than in-person workshops largely because the environment of video calls was not as conducive to group exercises and collaboration.

**SOLUTION REQUIREMENTS**

SAP searched for a solution that could:

- Provide a usable platform to help employees collaborate effectively, combining the flexibility of remote collaboration with the productivity of in-person workshops.

- Help adapt to a future hybrid work environment where employees and customers work in both an office and at home, and where the success of projects depends on UX design teams working flexibly in virtual environments.

- Involve a vendor as a partner rather than just a service provider, enabling SAP to get the most value of its transition to virtual workshops.

**"The main reason we chose MURAL was the way they supported us. They were strong in enablement. We had a colleague from MURAL in the company who ran a lot of sessions for employees. This was one of the drivers of collaboration with MURAL."** — *UX designer*

After a request for proposal (RFP) and business case process evaluating multiple vendors, SAP chose MURAL and began deployment.

- Initial deployment was limited to a few teams to pilot usage of MURAL across a few dozen employees.

- After the success of the pilot program became apparent, more and more business leaders and individual users within SAP requested access to MURAL, expanding to over 30,000 licenses.

**USE CASE DESCRIPTION**

SAP deployed MURAL across multiple geographies and a wide variety of team types. This analysis will focus on how MURAL is used within presales, solution design, and UX design teams, along with additional cases where MURAL is used for new employee onboarding. While there is likely benefits of using MURAL for SAP beyond these specific groups, these interviewees reported that their adoption of MURAL had been especially impactful.

Multiple teams at SAP mentioned using MURAL for design-thinking projects, which is a method for understanding problems and opportunities, and solving them. SAP specifically used MURAL to facilitate workshops in its design-thinking process with both internal and external participants.

For this use case, Forrester has modeled benefits and costs over three years of SAP operating in a hybrid work environment where employees work in both local offices and at home.

**MURAL Deployment details**
- **33,000 total active MURAL users**
- **300 presales representatives**
- **1,667 solution design representatives**
- **600 UX designers**
- **159 custom projects**

# Analysis Of Benefits

Quantified benefit data

| Total Benefits | | | | | | |
|---|---|---|---|---|---|---|
| **Ref.** | **Benefit** | **Year 1** | **Year 2** | **Year 3** | **Total** | **Present Value** |
| Atr | Presales improved efficiency | $1,382,400 | $3,686,400 | $4,608,000 | $9,676,800 | $7,765,397 |
| Btr | Client solution design improved efficiency | $8,001,600 | $8,803,200 | $9,681,600 | $26,486,400 | $21,823,483 |
| Ctr | Internal solution design improved efficiency | $2,376,000 | $2,613,600 | $2,874,960 | $7,864,560 | $6,480,000 |
| Dtr | Employee onboarding improved efficiency | $526,320 | $579,360 | $637,296 | $1,742,976 | $1,436,093 |
| Etr | Business value of projects enabled by MURAL | $715,500 | $787,500 | $868,500 | $2,371,500 | $1,953,798 |
| Ftr | Avoided travel costs in hybrid work environment | $7,160,400 | $7,877,250 | $8,665,650 | $23,703,300 | $19,530,210 |
| | Total benefits (risk-adjusted) | $20,162,220 | $24,347,310 | $27,336,006 | $71,845,536 | $58,988,981 |

## PRESALES IMPROVED EFFICIENCY

**Evidence and data.** Interviewed decision-makers found that leveraging MURAL as a core part of the design process improved the efficiency of their employees.

A global learning business partner, working with hundreds of presales employees, found that MURAL made presales calls more efficient with customers and aligned priorities faster than previously possible.

- The same global learning business partner said that one of the largest benefits MURAL provided to presales employees was in shortening the amount of time needed to align with customers on project scope and requirements.

- MURAL allowed presales employees to cut their external call time by 25% and saved between 6 and 10 hours per workshop. As the average presales employee worked on 50 projects per year, this equated to almost 10% added efficiency per presales employee.

> **"MURAL can save presales 6 to 10 hours of a workshop with an entire team, and you can do that from your home. I mean it saved my team easily 60% to 75% of their workshop time. It's crazy."**
> — *Global learning business partner*

- SAP interviewees estimated that between 75% and 90% of time was dedicated to project work for employees using MURAL.

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about SAP in a hybrid work environment:

- The model projects gains efficiency from MURAL in the first three years of a hybrid work environment

- SAP starts with 300 presales employees using MURAL in Year 1 and scales to 1,000 presales employees in Year 3.

- The estimated salary of SAP presales employees has been calculated using industry averages rather than data specific to SAP.

Presales improved design-thinking project efficiency by:

# 9.6%

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:

- The number of presales employees, time spent on project work, and average salary used in this model are based on estimates of SAP. Other organizations may see a different benefit of MURAL to presales employees depending on how their organization is structured.

- The benefit of integrating MURAL into a presales process will depend on the complexity of the projects and how MURAL is used to align on customer needs. An organization with simple projects may not see as much of a lift in efficiency as less effort is needed to align on customer expectations.

**"With traditional methods, I'm not going to get as much input. Why? Because I have to ask for that input. But if I give them a MURAL canvas, I give them eight minutes of silence, and I say, 'What are the three to five most pressing problems that you have in your head?' All of a sudden, the whole canvas becomes a document that is gold for presales."** — *Global learning business partner*

**Results.** To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of almost $7.8 million.

- Presales employees using MURAL spend 80% of their time on project work. MURAL is not assumed to make employees more efficient in non-project-related work.

- Half of the time presales employees using MURAL saved is reinvested and provides additional value. The other half of saved time is not assumed to provide additional value.

**14%**

**$7.8 million**

three-year benefit PV
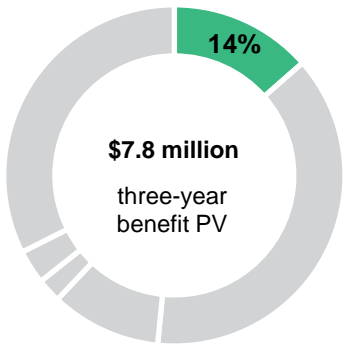
| Presales Improved Efficiency | | | | | |
|---|---|---|---|---|---|
| **Ref.** | **Metric** | **Source** | **Year 1** | **Year 2** | **Year 3** |
| A1 | Number of presales representatives using MURAL | Interviews | 300 | 800 | 1,000 |
| A2 | Percentage of time spent on project work | Interviews | 80% | 80% | 80% |
| A3 | Increased project efficiency enabled by MURAL | Interviews | 9.6% | 9.6% | 9.6% |
| A4 | Percent of saved time recaptured | TEI Standard | 50% | 50% | 50% |
| A5 | FTE salary (fully burdened industry average) | TEI Standard | $150,000 | $150,000 | $150,000 |
| At | Presales improved efficiency | A1*A2*A3*A4 | $1,728,000 | $4,608,000 | $5,760,000 |
| | Risk adjustment | ↓20% | | | |
| Atr | Presales improved efficiency (risk-adjusted) | | $1,382,400 | $3,686,400 | $4,608,000 |
| | **Three-year total: $9,676,800** | | **Three-year present value: $7,765,397** | | |

## CLIENT SOLUTION DESIGN IMPROVED EFFICIENCY

**Evidence and data.** Interviewed decision-makers found that leveraging MURAL as a core part of the sales process improved the efficiency of their employees.

A market unit leader of Cloud Success Services in North America had observed MURAL reduce rework and allow for work to be completed asynchronously, therefore enabling employees to become more efficient.

- The market unit leader also noted that solution design employee efficiency had grown considerably since the investment in MURAL, where one employee could now handle 20% more work than previously possible.

- Solution design employees incorporating MURAL into their projects enabled half of the improvement to employee efficiency, which means MURAL enabled employees to be 10% more efficient.

> **"With the use of MURAL, you can save some steps because notes are already digitized and memorialized and can be enhanced from there. That's one of the big advantages compared to in-person workshops where not everything gets captured."** — *Market unit leader*

- The market unit leader at SAP observed that MURAL improved employee efficiency in two ways: 1) employees could work asynchronously and shorten project timelines by a matter of weeks and 2) less rework was required as MURAL allowed solution design employees to

**"The power of an asynchronous working model, I think, is underestimated in MURAL. It can just be, 'I happen to have a few hours free in the morning and I'm going to work on something and my colleague happens to have a few hours free in the afternoon is going to work on something.' We don't have to wait until that day where we have the same two-hour window available. That's quite powerful."**
— *Market unit leader*

better understand the needs of customers and helped set clearer expectations with customers.

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about SAP in a hybrid work environment:

- The model projects gain efficiency from MURAL in the first three years of a hybrid work environment

- SAP starts with 1,667 solution design employees using MURAL in Year 1 and scales to 2,017 employees in Year 3.

- The estimated salary of SAP client solution employees has been calculated using industry averages rather than data specific to SAP.

- Solution design employees using MURAL spend 80% of their time on project work. MURAL is not assumed to make employees more efficient in non-project-related work.

- Half of the time solution design employees save by using MURAL is reinvested and provides additional value. The other half of saved time is not assumed to provide additional value.

Solution design improved design thinking project efficiency by:

# 10%

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:

- The number of solution design employees, time spent on project work, and average salary used in this model are based on estimates of SAP. Other organizations may see a different benefit of MURAL to its solution design employees depending on how their organization is structured.

- The benefit of integrating MURAL into solution design employees will depend on the complexity of the projects and how MURAL is used to align on customer needs.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of more than $21.8 million.

**$21.8 million**

three-year benefit PV

38%

| Ref. | Metric | Source | Year 1 | Year 2 | Year 3 |
|------|--------|--------|--------|--------|--------|
| **Client Solution Design Improved Efficiency** | | | | | |
| B1 | Number of solution design employees using MURAL | Interviews | 1,667 | 1,834 | 2,017 |
| B2 | Percentage of time spent on project work | Interviews | 80% | 80% | 80% |
| B3 | Increased project efficiency enabled by MURAL | Interviews | 10% | 10% | 10% |
| B4 | Percent of saved time recaptured | TEI Standard | 50% | 50% | 50% |
| B5 | FTE salary (fully burdened industry average) | TEI Standard | $150,000 | $150,000 | $150,000 |
| Bt | Client solution design improved efficiency | B1*B2*B3*B4*B5 | $10,002,000 | $11,004,000 | $12,102,000 |
| | Risk adjustment | ↓20% | | | |
| Btr | Client solution design improved efficiency (risk-adjusted) | | $8,001,600 | $8,803,200 | $9,681,600 |
| | **Three-year total: $26,486,400** | | **Three-year present value: $21,823,483** | | |

## IMPROVED INTERNAL SOLUTION DESIGN EFFICIENCY

**Evidence and data.** Interviewed decision-makers found that leveraging MURAL as a core part of the design process improved the efficiency of their employees.

A director of design strategy and systems, working with both business leaders and designers for internal SAP services, found that MURAL allowed the practice to significantly reduce rework required.

- When asked about how MURAL had impacted the design process for internal SAP development, the director of design and strategy systems overseeing the practice shared that the time UX designers needed to spend on project rework had decreased considerably with MURAL. The interviewee noted this was largely because user requirements were more clearly established at the very beginning of the project.

- Prior to implementing MURAL, it was estimated that 30% of total project time was spent on rework. After UX designers began to use MURAL

**"Now that we are more inclusive with MURAL, there are more iterations at the beginning of projects. But then once everybody is on the same page, projects tend to move faster, we discover all the communication issues a lot earlier, and failure rates are ultimately coming down."** — *Director of design strategy and systems*

to facilitate their discussions, it was estimated that only 20% project of total project time needed to be spent on rework, resulting in almost 10% added efficiency to total project work.

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about SAP in a hybrid work environment:

- The model projects gains efficiency from MURAL in the first three years of a hybrid work environment.

> **With MURAL, we are figuring things out live and saving a third of our rework time. And then there's this other intangible benefit of reducing rework that's probably even bigger where people are more engaged and move faster."** — *Director of design strategy and systems*

- SAP starts with 600 UX designers using MURAL in Year 1 and scales to 726 employees in Year 3.

- The estimated salary of SAP designers has been calculated using industry averages rather than data specific to SAP.

- UX designers using MURAL spend 80% of their time on project work. MURAL is not assumed to make employees more efficient in non-project related work.

- Half of the time UX designers save by using MURAL is reinvested and provides additional value. The other half of saved time is not assumed to provide additional value.

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:

**UX design improved project efficiency by:**

# 9.9%

- The number of UX designers, time spent on project work, and average salary used in this model are based on estimates of SAP. Other organizations may see a different benefit of MURAL to its UX designers depending on how their unique needs.

- The benefit of integrating MURAL into internal design processes will depend on the complexity of the projects and how MURAL is used to align on internal needs. An organization with simple design projects may not see as much of a lift in efficiency as less effort is needed to align on user requirements.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 20%, yielding a three-year, risk-adjusted total PV of nearly $6.5 million.

**$6.5 million**
three-year
benefit PV

**11%**
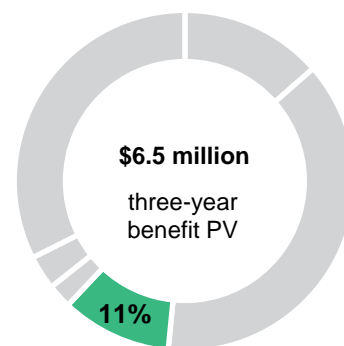
| Internal Solution Design Improved Efficiency | | | | | |
|------|------|------|------|------|------|
| **Ref.** | **Metric** | **Source** | **Year 1** | **Year 2** | **Year 3** |
| C1 | Number of UX designers using MURAL for internal solution design | Interviews | 600 | 660 | 726 |
| C2 | Percentage of time spent on project work | Interviews | 80% | 80% | 80% |
| C3 | Increased project efficiency enabled by MURAL | Interviews | 9.9% | 9.9% | 9.9% |
| C4 | Percent of saved time recaptured | TEI Standard | 50% | 50% | 50% |
| C5 | FTE salary (fully burdened industry average) | TEI Standard | $125,000 | $125,000 | $125,000 |
| Ct | Internal solution design improved efficiency | C1*C2*C3*C4 | $2,970,000 | $3,267,000 | $3,593,700 |
| | Risk adjustment | ↓20% | | | |
| Ctr | Internal solution design improved efficiency (risk-adjusted) | | $2,376,000 | $2,613,600 | $2,874,960 |
| | **Three-year total: $7,864,560** | | **Three-year present value: $6,480,000** | | |

**EMPLOYEE ONBOARDING IMPROVED EFFICIENCY**

**Evidence and data.** In addition to MURAL being used in revenue-generating project work, most interviewees mentioned that MURAL was also used in their practices to onboard new employees, and that it made the process more efficient.

- MURAL allowed facilitators to save time preparing for new employee onboarding and in collecting notes afterwards. The amount of time saved per new employee onboarding was between 1.5 and 7 hours, largely depending on how facilitators leveraged MURAL templates.

- In addition to facilitators saving time, interviewees observed that new employees were onboarded faster as MURAL allowed for the training to be completed between 2.5 and 3 hours faster than methods previously used. This saved time for both the facilitators and the new employees.

**"We want to bring people on the same page with MURAL. If you instead read a written document, you can misinterpret a lot."** — *UX designer*

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about SAP in a hybrid work environment:

- Based on weighted averages of number of new employee workshops and reported time saved across practices, new employees save an average of 2.6 hours of onboarding time because of MURAL. Facilitators save an average of 6

hours, including 3.4 hours of saved time outside of the workshop.

- By adding up the number of new employees needed to be onboarded across practice areas using MURAL, a total of 645 new employee onboarding workshops take place in Year 1 with an average of 10 new employees per workshop and one facilitator. This grows to 780 new employee onboarding workshops in Year 3.

- The estimated hourly wage of SAP employees has been calculated using industry averages rather than data specific to SAP.

> **"MURAL makes us more effective in workshops and, as we do this now more remotely, it saves travel costs. You get productivity gains, shorter and more intense workshops, more engagement from people, and more creativity."** — *Head of user experience IT*
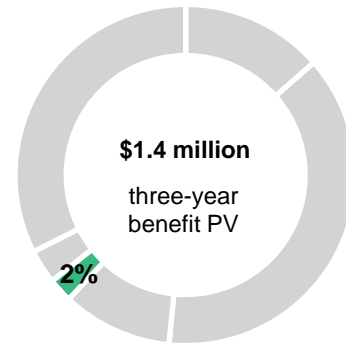
**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:

- In a hybrid work environment, organizations will have more of a choice whether employees are onboarded virtually or in-person, so how frequently a new employee onboards virtually is a factor. Organizations who chose to onboard new employees in-person may not use MURAL as often during these sessions.

- As previously noted, facilitators saved between 1.5 and 7 hours of time, which largely depended on their use of MURAL templates, so how MURAL templates are leveraged is a factor. Organizations who do not use prebuilt templates for new employee onboarding may not see as much benefit to their facilitators in terms of saved preparation effort.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 15%, yielding a three-year, risk-adjusted total PV of more than $1.4 million.

**$1.4 million**
three-year
benefit PV

2%

## Employee Onboarding Improved Efficiency

| Ref. | Metric | Source | Year 1 | Year 2 | Year 3 |
|------|--------|--------|--------|--------|--------|
| D1 | Onboarding workshops facilitated using MURAL | Interviews | 645 | 710 | 781 |
| D2 | Saved facilitator labor hours per workshop | Interviews | 6.0 | 6.0 | 6.0 |
| D3 | Saved participant labor hours per participant per workshop | Interviews | 2.6 | 2.6 | 2.6 |
| D4 | Average number of participants per workshop | Interviews | 10 | 10 | 10 |
| D5 | Total labor hours saved per year | D1*(D2+(D3*D4)) | 20,640 | 22,720 | 24,992 |
| D6 | FTE hourly wage (fully burdened industry average) | TEI Standard | $60 | $60 | $60 |
| D7 | Percentage of time recaptured | TEI Standard | 50% | 50% | 50% |
| Dt | Employee onboarding improved efficiency | D5*D6*D7 | $619,200 | $681,600 | $749,760 |
| | Risk adjustment | ↓15% | | | |
| Dtr | Employee onboarding improved efficiency (risk-adjusted) | | $526,320 | $579,360 | $637,296 |
| | **Three-year total: $1,742,976** | | **Three-year present value: $1,436,093** | | |

## BUSINESS VALUE OF PROJECTS ENABLED BY MURAL

**Evidence and data.** While most business leaders saw the greatest benefit of MURAL in improving employee and project efficiency, one practice area found that, if not for MURAL, they would not have delivered all of their projects.

- A senior global director of enterprise transformation estimated that if their practice area had not used MURAL during the pandemic, at least 20% of projects would not have been commissioned as there would not have been an effective way to collaborate with clients virtually.

- The interviewee noted that, while this would not be as large of an issue in a future hybrid work environment, the difficulty would persist as it would not be possible to meet with all customers in-person to design project requirements. Because of this, some projects would not be

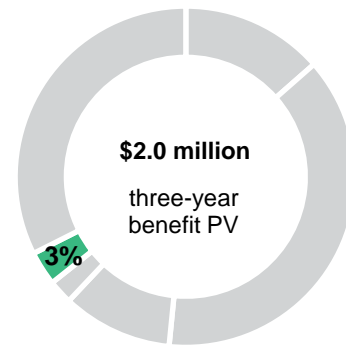possible to commission without MURAL in a hybrid work environment.

- Most projects enabled by MURAL were estimated to generate between $250,000 and $300,000 in revenue to SAP. Some projects generated significantly more.

> **"I had two customers that after going through workshops with me, bought MURAL licenses for their own company."** — *Innovation manager*

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about SAP in a hybrid work environment:

- In a hybrid work environment, MURAL continues to allow some projects to be commissioned which is not otherwise possible.

- Of the original 20% of projects that MURAL enabled during the pandemic, half of these projects can be completed in-person in a hybrid world. The remaining 10% are only possible because MURAL is used for collaboration.

- The profit of each project enabled by MURAL is $50,000. This is an assumption made by Forrester based on an estimated $250,000 per project and is not a value provided by SAP.

> **"I cannot imagine doing a brainstorming workshop without MURAL … It's really the onsite whiteboard translated into the virtual world."** — *Innovation manager*

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:

- Each organization designs different types of projects. For organizations with projects that are simpler and more easily designed remotely, MURAL may not provide the same value in protected the profit of this work.

- Clients differ between industries and groups. If clients are already working fully in-person in a

hybrid world, it may be easier to design projects with them in-person, and it may not be as necessary to use a platform like MURAL for virtual design collaboration.

**Results.** To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of approximately $2.0 million.

**$2.0 million**

three-year
benefit PV

3%

## Business Value Of Projects Enabled By MURAL

| Ref. | Metric | Source | Year 1 | Year 2 | Year 3 |
|------|--------|--------|--------|--------|--------|
| E1 | Number of custom projects per year | Interviews | 159 | 175 | 193 |
| E2 | Profit per custom design project | Interviews | $50,000 | $50,000 | $50,000 |
| E3 | Projects enabled by MURAL in hybrid environment | Interviews | 10% | 10% | 10% |
| Et | Business value of projects enabled by MURAL | E1*E2*E3 | $795,000 | $875,000 | $965,000 |
| | Risk adjustment | ↓10% | | | |
| Etr | Business value of projects enabled by MURAL (risk-adjusted) | | $715,500 | $787,500 | $868,500 |
| | **Three-year total: $2,371,500** | | **Three-year present value: $1,953,798** | | |

**AVOIDED TRAVEL COSTS IN HYBRID WORK ENVIRONMENT**

**Evidence and data.** SAP's travel costs were significantly reduced during the pandemic. As SAP enters a hybrid work environment, travel costs are estimated to increase, but not immediately return to pre-pandemic levels. Business leaders estimate that MURAL will continue to enable effective remote design and collaboration, allowing them to further avoid travel costs in a hybrid environment.

- Interviewees across practice areas estimated that using MURAL in a hybrid work environment will avoid a portion of travel needs. This varied between 10% and 100% of future travel avoided due to MURAL, depending on the practice area.

- The portion of travel avoidable in a hybrid work environment depended largely on the structure and type of work each practice area using MURAL conducted.

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about SAP in a hybrid work environment:

> **"If we did not have MURAL [in a hybrid work environment], our effectiveness would not be as high and, potentially, after a while we would need to go back to 100% travel."** — *Head of user experience IT*

- By using a weighted average of number of flights and percent of future travel avoidable due to MURAL, Forrester estimates that 23% of design-related travel is avoidable for SAP in a hybrid work environment.

- A total of 23,060 flights is required for design work in Year 1. This increases to 27,910 in Year 3.

- The average cost to SAP per trip is $1,500, including flight, hotel accommodation, and food.

> **"As the world starts to get back to normal, I think there will be a sustained cost avoidance from us not having as many in-person meetings."** — *Market unit leader*

Carbon emissions avoided due to MURAL use in hybrid working environment (over three years):

# 1.9 million kg

**Results.** To account for these risks, Forrester adjusted this benefit downward by 10%, yielding a three-year, risk-adjusted total PV of more than $19.5 million.

- To calculate CO2 avoided, the average trip is assumed to be 495 miles (797 kilometers) and produces approximately 255 kilograms of CO2 per passenger. This accounts for most flights being regional with a small portion being international.

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:
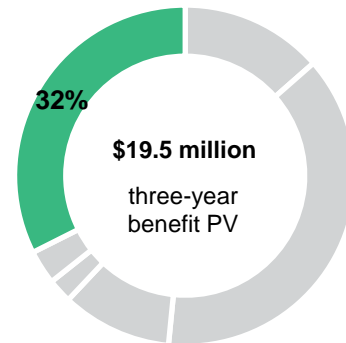
- Travel needs in a hybrid world will vary between organization and the needs of their customers. While this estimate is based on already significantly reduced travel needs in a hybrid environment, some organizations may have an even lower need for design-related travel, which would reduce the amount of benefit provided by MURAL in avoided travel costs.

- As of the publication of this case study, the pandemic has not ended and hybrid work is in the early stages of adoption, so travel requirements may change in the future. An organization may not see as much of a benefit of avoided travel costs if they have not fully transitioned from remote work into a hybrid work model.

**32%**

**$19.5 million**
three-year
benefit PV

## Avoided Travel Costs In Hybrid Work Environment

| Ref. | Metric | Source | Year 1 | Year 2 | Year 3 |
|------|--------|--------|--------|--------|--------|
| F1 | In-person workshops requiring travel | Interviews | 2,306 | 2,537 | 2,791 |
| F2 | Average number of participants requiring travel per in-person workshop | Interviews | 10 | 10 | 10 |
| F3 | Total number of flights required | F1*F2 | 23,060 | 25,370 | 27,910 |
| F4 | Percentage of in-person workshops avoidable by MURAL in hybrid work environment | Interviews | 23% | 23% | 23% |
| F5 | Flights avoided as a result of MURAL in hybrid environment | F3*F4 | 5,304 | 5,835 | 6,419 |
| F6 | Avoided travel costs per person per workshop | Interviews | $1,500 | $1,500 | $1,500 |
| Ft | Avoided travel costs in hybrid work environment | F5*F6 | $7,956,000 | $8,752,500 | $9,628,500 |
| | Risk adjustment | ↓10% | | | |
| Ftr | Avoided travel costs in hybrid work environment (risk-adjusted) | | $7,160,400 | $7,877,250 | $8,665,650 |
| | **Three-year total: $23,703,300** | | **Three-year present value: $19,530,210** | | |

**UNQUANTIFIED BENEFITS**

Additional benefits that the customer experienced but was not able to quantify include:

- **More inclusive input.** Most interviewees mentioned that they achieved greater diversity of input by using MURAL in two ways: 1) by providing an environment where more introverted employees could express their thoughts more structurally and without competing for talking time and 2) MURAL allowed for a greater number of participants to join workshops. This meant that employees who previously had not shared their perspective were now adding greater value to projects.

> **"Before MURAL, contributions were a lot more exclusive. We would have workshops with five or seven people. Now with MURAL, we have workshops with 12, 15, 20 people. So, we increase the quality of the outputs while also increasing the level of confidence and shared understanding."** — *Director of design strategy and systems*

- **Lower UX designer attrition.** A design director found that MURAL reduced attrition among team members as it alleviated many of the inherent difficulties in the virtual-design process. This interviewee estimated that, if MURAL was no longer available to these designers, designer attrition would rise to its previous levels. This benefit was not quantified as a part of this study

as it was not possible to disentangle the effects of the pandemic and general macro changes in the labor market, but the design director estimated it was a substantial cost savings for SAP.

> **"We saw a lot of designers quitting before we adopted MURAL. Employees said: 'I cannot do anything. I keep running into all these communication issues.' So, there was a component of attrition that was because we didn't have MURAL."** — *Director of design strategy and systems*

**FLEXIBILITY**

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

- **Asynchronous work.** Interviewees mentioned strategic flexibility resulting from asynchronous work enabled by MURAL. For instance, several interviewees mentioned that some work simply would not have been possible for employees to complete if they were not able to work asynchronously through MURAL. This allowed business leaders to explore new types of design projects and further deepen relationships with clients.

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

## Total Costs

| Ref. | Cost | Initial | Year 1 | Year 2 | Year 3 | Total | Present Value |
|------|------|---------|--------|--------|--------|-------|---------------|
| Gtr | MURAL subscription and support costs | $0 | $3,360,000 | $3,696,000 | $4,065,600 | $11,121,600 | $9,163,636 |
| Htr | Facilitator training labor | $1,667,002 | $250,272 | $457,459 | $352,915 | $2,727,648 | $2,537,737 |
| | Total costs (risk-adjusted) | $1,667,002 | $3,610,272 | $4,153,459 | $4,418,515 | $13,849,248 | $11,701,373 |

**MURAL LICENSE AND SUPPORT COSTS**

**Evidence and data.** SAP pays MURAL an annual license cost for access to the MURAL platform.

- The MURAL license (or membership) cost is based on the number of actively engaged SAP accounts in each quarter (a "quarterly engaged model" or QEM). Of all SAP employees with access to the MURAL platform, approximately 33,000 are actively engaged users.

- SAP's annual license cost also includes support and enablement resources from MURAL, including customized templates for individual practice areas. MURAL also provides multiple dedicated customer success representatives to SAP, which is included in SAP's annual license cost.

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about SAP in a hybrid work environment:

- The MURAL license cost is $3.2 million in Year 1 of SAP operating in a hybrid work environment. As SAP's usage of MURAL expands, this will grow to $3,872,000 by Year 3.

**"We are aware of alternative solutions [to MURAL], and we are clear that there is very little comparable that would fit everything that we use it for."** — *Head of user experience IT*

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:

- License and support costs for MURAL will depend on the total number of users as well as support and enablement resources required. An organization with fewer users and more unique needs may have a higher cost per user than estimated for SAP in this analysis.

**Results.** To account for these risks, Forrester adjusted this cost upward by 5%, yielding a three-year, risk-adjusted total PV (discounted at 10%) of less than $9.2 million.

**$9.2 million**

three-year
cost PV

77%
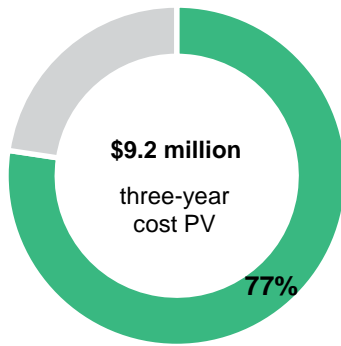
**MURAL Subscription And Support Costs**

| Ref. | Metric | Source | Initial | Year 1 | Year 2 | Year 3 |
|---|---|---|---|---|---|---|
| G1 | MURAL Subscription and support costs | Interviews | | $3,200,000 | $3,520,000 | $3,872,000 |
| Gt | MURAL subscription and support costs | G1 | $0 | $3,200,000 | $3,520,000 | $3,872,000 |
| | Risk adjustment | ↑5% | | | | |
| Gtr | MURAL subscription and support costs (risk-adjusted) | | $0 | $3,360,000 | $3,696,000 | $4,065,600 |
| | Three-year total: $11,121,600 | | | Three-year present value: $9,163,636 | | |

**FACILITATOR TRAINING**

**Evidence and data.** Interviewees noted that facilitators needed training to use MURAL effectively and incorporate MURAL into their best practices.

- It was estimated that participants required less than 15 minutes at the beginning of a workshop to learn to use MURAL (an amount captured in the net improved efficiency). However, facilitators of the workshops reported needing more time to be fully proficient with leading a group in MURAL.

- Interviewees estimated that facilitators needed between 4 hours and a day and a half of using MURAL to become pro users who could use advanced features proficiently and help participants receive the full benefit of using MURAL.

> **"The entry to MURAL is very low. Most of the time, we need to spend little-to-no time on training participants."** — *Director of design strategy and systems*

- Some interviewees noted that they made custom templates in addition to the ones that MURAL had created for them.

- Interviewees mentioned that aside from a learning curve for facilitators, no other costs were

incurred as they integrated MURAL into their design practice.

**Modeling and assumptions.** To reflect the interviewees' experiences, Forrester assumes the following about SAP in a hybrid work environment:

- New facilitators require an average of 8 hours to become fully proficient with using MURAL to lead workshops. This is a weighted average across practice areas based on the number of facilitators using MURAL.

- While current SAP facilitators have already learned to use MURAL, this time is included as an initial cost to represent a more realistic scenario to readers considering the solution who have not yet trained facilitators to use MURAL.

- In Year 1, an additional 395 new learns to lead workshops with MURAL. This increases to 722 in Year 2 and then lowers to 557 in Year 3. This number is assumed to fluctuate based on facilitator turnover and increased adoption of MURAL over time.

- The estimated hourly wage of SAP facilitators has been calculated using industry averages rather than data specific to SAP.

**Risks.** Forrester recognizes that these results may not be representative of all experiences, and the benefit will vary between organizations depending on the following factors:

- The likelihood that facilitators will create their own templates, spending additional time.

- The organizational culture surrounding workshop facilitation. While facilitators at SAP successfully transitioned to using MURAL, change can be difficult and take more effort in some organizations.

**Results.** To account for these risks, Forrester adjusted this cost upward by 10%, yielding a three-year, risk-adjusted total PV of more than $2.5 million.

**23%**

**$2.5 million**

three-year
cost PV
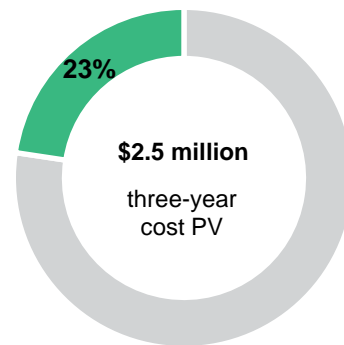
| Facilitator Training Labor | | | | | | |
|---|---|---|---|---|---|---|
| **Ref.** | **Metric** | **Source** | **Initial** | **Year 1** | **Year 2** | **Year 3** |
| H1 | Number of new facilitators using MURAL | Interviews | 2,631 | 395 | 722 | 557 |
| H2 | Hours to learn to faciliate using MURAL | Interviews | 8 | 8 | 8 | 8 |
| H3 | Total labor hours | H1*H2 | 21,048 | 3,160 | 5,776 | 4,456 |
| H4 | Hourly wage (fully burdened) | B5/ 2080 hours | $72 | $72 | $72 | $72 |
| Ht | Facilitator training labor | H1*H2*H3*H4 | $1,515,456 | $227,520 | $415,872 | $320,832 |
| | Risk adjustment | ↑10% | | | | |
| Htr | Facilitator training labor (risk-adjusted) | | $1,667,002 | $250,272 | $457,459 | $352,915 |
| | **Three-year total: $2,727,648** | | | **Three-year present value: $2,537,737** | | |

# Financial Summary

## CONSOLIDATED THREE-YEAR RISK-ADJUSTED METRICS

### Cash Flow Chart (Risk-Adjusted)
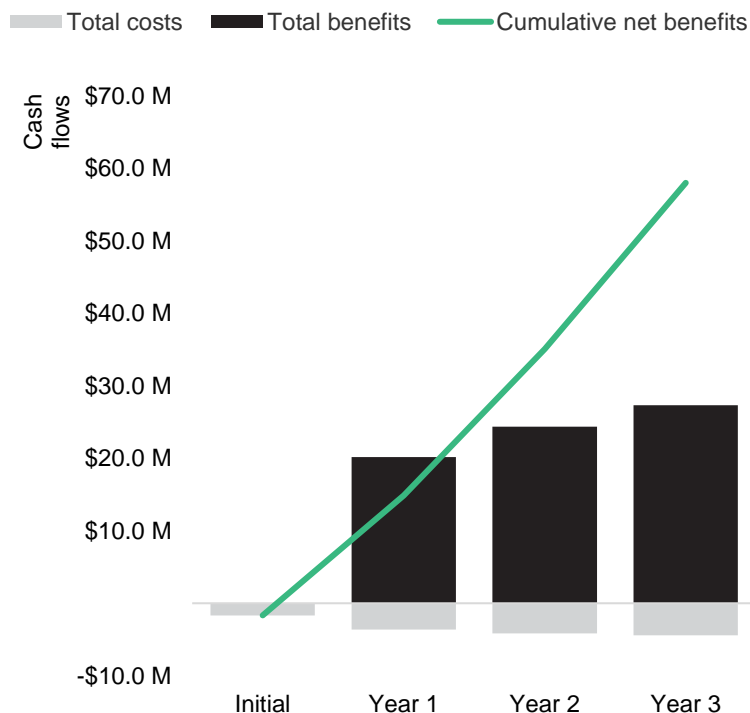


The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the organization's investment. Forrester assumes a yearly discount rate of 10% for this analysis.

**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 | ($1,667,002) | ($3,610,272) | ($4,153,459) | ($4,418,515) | ($13,849,248) | ($11,701,373) |
| Total benefits | $0 | $20,162,220 | $24,347,310 | $27,336,006 | $71,845,536 | $58,988,981 |
| Net benefits | ($1,667,002) | $16,551,948 | $20,193,851 | $22,917,491 | $57,996,288 | $47,287,608 |
| ROI | | | | | | 404% |
| Payback period (months) | | | | | | <6 |

# 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

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

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