

Commissioned By Microsoft, June 2020

The Total Economic Impact™ Of Microsoft Surface Hub

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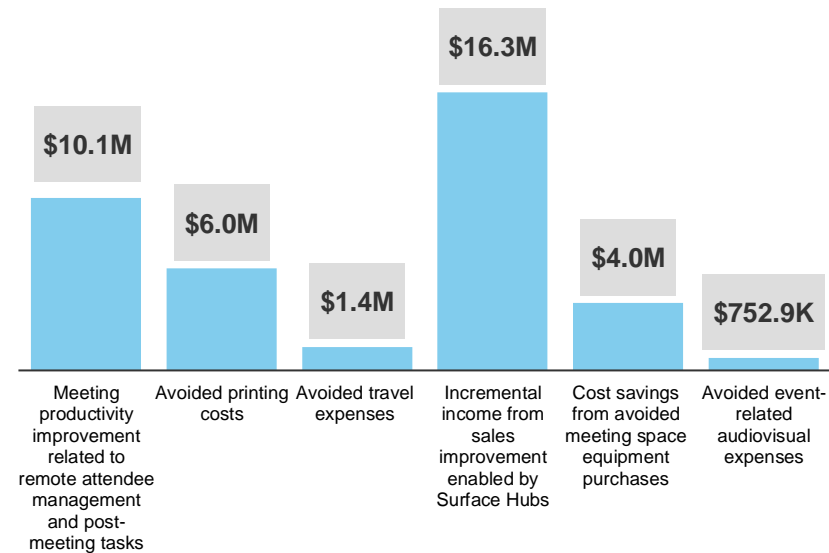
Executive Summary

BY IMPROVING COLLABORATION FOR BOTH ONSITE AND REMOTE PARTICIPANTS, MICROSOFT SURFACE HUB MAKES MEETINGS MORE EFFICIENT AND PRODUCTIVE. IT ALSO ENABLES ORGANIZATIONS TO USE SPACE IN NEW AND DIFFERENT WAYS.

Surface Hub meeting participants (regardless of location) can simultaneously engage with content and each other, then capture meeting outputs digitally in order to continue collaborating after the meeting. Users can access it in locations ranging from a meeting room or huddle space to nearly anywhere using the mobile Surface Hub 2S.

Microsoft commissioned Forrester Consulting to conduct a TEI study and examine the potential return on investment enterprises may realize from deploying Surface Hub. The purpose of this study is to provide readers with a framework to evaluate the potential financial impact on their organizations of using Surface Hub. Forrester quantified benefits, costs, risks, and flexibility based on interviews with five Surface Hub customers. Using customer feedback, Forrester determined this investment has the following three-year risk-adjusted financial impact on a composite organization:

Benefits (Three-Year)



Net Present Value:
\$28.9 million



Return On Investment:
302%



Payback Period:
<6 months



Benefits Present Value:
\$38.4 million

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Forrester's Total Economic Impact™ Methodology

The Total Economic Impact (TEI) 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 solutions to clients.

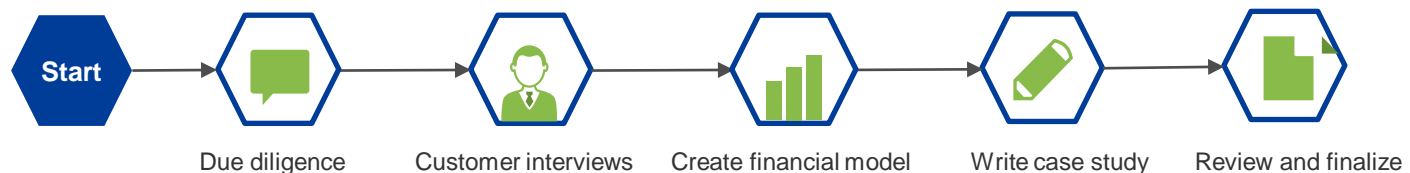
The TEI methodology consists of four components to evaluate investment value:

- **Benefits** represent the value delivered to the user organization by the project.
- **Costs** represent the investment necessary to capture the benefits of the project.
- **Flexibility** represents the value that can be obtained for some future additional investment, building on top of the initial investment already made.
- **Risks** represent the uncertainty of benefit and cost estimates contained within the investment.

See Appendix for more details.

		TCO	ROI	TEI
IT impact	IT costs			
	IT cost savings			
Business impact	User efficiency			
	Business effectiveness			
Risk/uncertainty	Risk mitigation			
	Risk versus reward			
Strategic impact	Scalability			
	Flexibility			

Forrester took a multistep approach to evaluate the impact that Surface Hub can have on an organization:



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About The Surface Hub Customers

• Varied industries

- Financial services
- Professional services (2)
- Manufacturing
- Utility

• Decisionmaker interviewees

- Service designer, digital workspace
- Video and collaboration strategy architect
- Digital leader; senior manager
- Two members of the product digital office
- Senior technical architect

• Diverse Surface Hub objectives

- Better collaboration
- More productive meetings
- Enhanced client experience
- Simpler and less expensive all-in-one solution

“The shared digital whiteboards and being able to make conversations visual help to get everyone on the same page.”



“The spitballing and brainstorming is a totally transformed experience. We get more done now in the same amount of time during meetings.”



“The mobility of a Surface Hub 2S gives us more flexibility.”



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COMPOSITE ORGANIZATION

The composite organization is representative of the five Microsoft customers that Forrester interviewed. This composite organization is used to present the aggregate financial analysis in the next section and has the following characteristics:

- The composite organization is a global professional services entity with more than 200,000 employees serving thousands of clients and working either remotely or from one of the organization's nearly 200 offices worldwide.
- The composite organization has been using Surface Hub for several years and now has more than 500 Surface Hubs deployed in conference rooms and collaboration spaces.
- The Surface Hubs are integrated with Microsoft Teams, and are used to optimize internal operations and client-facing activities.

“Surface Hubs make it seem like remote participants are in the room and really part of the meeting. The more inclusive virtual environment breaks down boundaries between remote and on-site workers.”



“We can improve collaboration through new approaches to working together and use space in new and different ways.”



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Microsoft Surface Hub enables:

MEETING PRODUCTIVITY IMPROVEMENT RELATED TO REMOTE ATTENDEE MANAGEMENT AND POST-MEETING TASKS

- By using Surface Hubs for meetings instead of their prior audiovisual equipment, interviewed organizations improved employee productivity in two ways: Meetings with remote participants start faster and meetings require less time for post-meeting tasks.
- In meetings initiated from a Surface Hub, the “one-touch join” functionality gets meetings underway quickly, including those that involve remote participants. Confirming that remote participants are connected no longer creates delays for meeting organizers and participants who struggle to connect.
- Surface Hubs also save post-meeting time previously spent capturing paper annotations in a digital format, taking pictures of whiteboards, typing up discussion notes, capturing what got jotted on sticky notes, making edits that were discussed, or writing up explanations of a diagram or image. With Surface Hubs, meeting outputs are already digitized and just need to be distributed to participants. An IT specialist at a manufacturer explained: “With Surface Hub, you don’t need to spend time taking minutes. It’s right there on the whiteboard.”
- **Meeting productivity improvement related to remote attendee management and post-meeting tasks saved the composite organization a risk-adjusted total present value of \$10.1 million over three years.**



**Three-year PV:
\$10.1 million**

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Meeting Productivity Improvement

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
A1	Number of Surface Hub devices in use			95	215	515
A2	Average device utilization rate			55%	60%	60%
A3	Number of scheduled meetings per year affected by Surface Hub use	$A1 * A2 * 40 * 52$		108,680	268,320	642,720
A4	Average total number of participants per meeting			6	6	6
A5	Percentage of meetings with remote participants			40%	40%	40%
A6	For meetings with remote participants: average time previously spent dealing with remote attendees' connections (minutes per meeting)			10	10	10
A7	For meetings with remote participants: percentage of participants with unproductive time due to dealing with remote attendees' connections			40%	40%	40%
A8	For meetings with remote participants: total unproductive time dealing with remote attendees' connections (hours)	$A3 * A4 * A5 * A6 / 60 * A7$		17,389	42,931	102,835
A9	Average post-meeting time spent transcribing and distributing notes and other information (minutes per meeting prior to Surface Hub)			20	20	20
A10	Total time spent transcribing and distributing notes (hours)	$A3 * A9 / 60$		36,227	89,440	214,240
A11	Percentage of pre- and post-meeting time saved with Surface Hub			80%	80%	80%
A12	Percentage of saved time recovered for work tasks			50%	50%	50%
A13	End user (meeting attendee) fully loaded average hourly rate	$\$156,000 / 2,080$		\$75	\$75	\$75
At	Meeting productivity improvement related to remote attendee management and post-meeting tasks	$(A8 + A10) * A11 * A12 * A13$	\$0	\$1,608,480	\$3,971,130	\$9,512,250
	Risk adjustment	↓ 15%				
Atr	Meeting productivity improvement related to remote attendee management and post-meeting tasks (risk-adjusted)		\$0	\$1,367,208	\$3,375,461	\$8,085,413

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Microsoft Surface Hub enables:

AVOIDED PRINTING COSTS

- Moving to Surface Hub helped interviewed organizations substantially reduce their printing costs (as well as the time spent on that printing). Since Surface Hubs provide easy access to digital information via OneDrive or SharePoint, the ability to project information onto a Surface Hub from various devices, and the ability to readily capture a group's collective input directly onto documents or the whiteboard, organizers and participants no longer felt compelled to bring a lot of printouts to in-person meetings.
- A senior technical architect for a utility said: "People no longer feel they need to bring printouts of their 50-page presentation to a meeting." A senior manager at a professional service firm noted: "In the past, we often printed a thousand pages for a client meeting. Now we don't even print, since it's all there electronically." A service designer, digital workspace, for a financial services company said: "Being a financial institution, we printed everything, and we printed it multiple times. We've absolutely reduced printing costs by moving to Surface Hubs."
- **Avoided printing costs saved the composite organization a risk-adjusted total present value of \$6.0 million over three years.**



**Three-year PV:
\$6.0 million**

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Avoided Printing Costs

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
B1	Percentage of meetings with printed handouts			50%	50%	50%
B2	Meetings with printed handouts held in Surface Hub spaces	A3*B1		54,340	134,160	321,360
B3	Number of pages printed per meeting that can be avoided with Surface Hub			150	150	150
B4	Percentage of printouts that are color copies			40%	40%	40%
B5	Cost for color copy per page			\$0.20	\$0.20	\$0.20
B6	Cost for black and white copy per page			\$0.05	\$0.05	\$0.05
Bt	Avoided printing costs	$(B2*B3*B4*B5) + (B2*B3*(1-B4)*B6)$	\$0	\$896,610	\$2,213,640	\$5,302,440
	Risk adjustment	↓10%				
Btr	Avoided printing costs (risk-adjusted)		\$0	\$806,949	\$1,992,276	\$4,772,196

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Microsoft Surface Hub enables:

AVOIDED TRAVEL EXPENSES

- The interviewed companies had geographically dispersed operations that historically prompted substantial travel. Surface Hub meetings replaced some of that travel.
- Although it is not quantified for this study, organizations also mentioned reducing the less-productive or unproductive time that employees previously spent in transit.
- A service designer, digital workspace, for a financial services company said: “Our use of Surface Hubs definitely reduces our travel costs, by replacing a lot of trips between our offices.” An IT specialist at a manufacturer reported using Surface Hubs to connect various aspects of its worldwide operations, such as geographically disparate design and manufacturing teams. At a utility company with regional operations, a senior technical architect cited both the economic impact and the enhanced employee safety and productivity from using Surface Hub meetings instead of taking road trips to its various facilities.
- **Avoided travel expenses saved the composite organization a risk-adjusted total present value of \$1.4 million over three years.**



**Three-year PV:
\$1.4 million**

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Avoided Travel Expenses

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
C1	Number of Surface Hub devices in use	A1		95	215	515
C2	Number of business trips avoided per device (per year)			2	2	2
C3	Domestic percentage of trips			80%	80%	80%
C4	Average total cost per domestic trip			\$800	\$800	\$800
C5	International percentage of trips			20%	20%	20%
C6	Average cost per international trip			\$2,700	\$2,700	\$2,700
Ct	Avoided travel expenses	$(C1 \cdot C2 \cdot C3 \cdot C4) + (C1 \cdot C2 \cdot C5 \cdot C6)$	\$0	\$224,200	\$507,400	\$1,215,400
	Risk adjustment	↓10%				
Ctr	Avoided travel expenses (risk-adjusted)		\$0	\$201,780	\$456,660	\$1,093,860

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Microsoft Surface Hub enables:

INCREMENTAL INCOME FROM SALES IMPROVEMENT ENABLED BY SURFACE HUBS

- Leveraging Surface Hubs for client meetings helped a global professional services firm improve its ability to get and keep business by interacting with clients in innovative ways that exemplified its own inventive thinking and by “showing up digitally” at a time when most of its clients have prioritized digital transformation for their organizations. The Surface Hubs are used not only for in-person meetings at a single location, but also to effectively collaborate with remote participants. The firm has held sessions with simultaneous participation from multiple locations worldwide. .
- Incremental income from sales improvement enabled by Surface Hubs delivered to the composite organization a risk-adjusted total present value of \$16.3 million over three years.**



**Three-year PV:
\$16.3 million**

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
D1	Incremental revenue associated with senior executive events held in Surface Hub-equipped spaces	Interviewee estimates		\$300,000,000	\$600,000,000	\$900,000,000
D2	Percentage incremental revenue attributable to innovative client experience enabled by Surface Hubs			15%	15%	15%
D3	Profit margin			10%	10%	10%
Dt	Incremental income from sales improvement enabled by Surface Hubs	$D1 * D2 * D3$	\$0	\$4,500,000	\$9,000,000	\$13,500,000
	Risk adjustment	↓25%				
Dtr	Incremental income from sales improvement enabled by Surface Hubs (risk-adjusted)		\$0	\$3,375,000	\$6,750,000	\$10,125,000

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Microsoft Surface Hub enables:

COST SAVINGS FROM AVOIDED MEETING SPACE EQUIPMENT PURCHASES

- When interviewed organizations deployed Surface Hubs for already-planned meeting space buildouts or refreshes of existing meeting spaces, they reported considerable savings compared to what they had budgeted to spend for legacy audiovisual systems in those spaces.
- **Cost savings from avoided meeting space equipment purchases saved the composite organization a risk-adjusted total present value of \$4.0 million over three years.**



**Three-year PV:
\$4.0 million**

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
E1	Number of Surface Hub devices put into use		25	70	120	300
E2	Percentage of those Surface Hub devices that replaced a planned refresh or buildout of meeting room audiovisual capabilities		50%	50%	25%	25%
E3	Avoided initial hardware, software, and implementation services with Surface Hub, average per room		\$35,000	\$35,000	\$35,000	\$35,000
Et	Cost savings from avoided meeting space equipment purchases	$E1 * E2 * E3$	\$437,500	\$1,225,000	\$1,050,000	\$2,625,000
	Risk adjustment	↓10%				
Etr	Cost savings from avoided meeting space equipment purchases (risk-adjusted)		\$393,750	\$1,102,500	\$945,000	\$2,362,500

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Microsoft Surface Hub enables:

AVOIDED EVENT-RELATED AUDIOVISUAL EXPENSES

- An interviewee from a manufacturer found their organization could use its Surface Hubs at external events for which it previously would have paid a services provider to set up and operate audiovisual equipment. Examples include press briefings, conferences, events with corporate or university partners, and open houses for potential employees.
- Because each external event now costs less, the organization can hold more of them.
- **Avoided event-related audiovisual expenses saved the composite organization a risk-adjusted total present value of \$752,930 over three years.**



**Three-year PV:
\$752,930**

REF.	METRIC	CALC.	INITIAL	YEAR 1	YEAR 2	YEAR 3
F1	Number of events for which Surface Hub use replaces external audiovisual equipment vendor support			10	12	14
F2	Average audiovisual vendor fees avoided per event			\$30,000	\$30,000	\$30,000
Ft	Avoided event-related audiovisual expenses	F1*F2	\$0	\$300,000	\$360,000	\$420,000
	Risk adjustment	↓15%				
Ftr	Avoided event-related audiovisual expenses (risk-adjusted)		\$0	\$255,000	\$306,000	\$357,000

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Total Benefits:

CALCULATIONS FOR ALL BENEFITS AND DISCOUNTING TO CALCULATE THREE-YEAR PRESENT VALUE

REF.	METRIC	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Atr	Meeting productivity improvement related to remote attendee management and post-meeting tasks	\$0	\$1,367,208	\$3,375,461	\$8,085,413	\$12,828,081	\$10,107,243
Btr	Avoided printing costs	\$0	\$806,949	\$1,992,276	\$4,772,196	\$7,571,421	\$5,965,521
Ctr	Avoided travel expenses	\$0	\$201,780	\$456,660	\$1,093,860	\$1,752,300	\$1,382,675
Dtr	Incremental income from sales improvement enabled by Surface Hubs	\$0	\$3,375,000	\$6,750,000	\$10,125,000	\$20,250,000	\$16,253,757
Etr	Cost savings from avoided meeting space equipment purchases	\$393,750	\$1,102,500	\$945,000	\$2,362,500	\$4,803,750	\$3,951,996
Ftr	Avoided event-related audiovisual expenses	\$0	\$255,000	\$306,000	\$357,000	\$918,000	\$752,930
	Total benefits (risk-adjusted)	\$393,750	\$7,108,437	\$13,825,397	\$26,795,969	\$48,123,552	\$38,414,122

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Microsoft Surface Hub enables:

UNQUANTIFIED BENEFITS

- Greater flexibility around the use of physical space.
- Improved collaboration, resulting in more effective, more efficient, and higher quality meetings.
- Reduction of project/initiative risk and cost, along with faster time-to-revenue.
- Enhanced meeting experience for both in-office and remote participants.
- Broader participation in meetings.
- Flexibility to adjust meeting direction on the fly.
- Data portability.
- Decreased potential for data mis-use.
- Ease of installation and maintenance for the consistent and repeatable Surface Hub solution.

FUTURE FLEXIBILITY

- Take advantage of future Surface Hub capabilities as they are added.
- Integrate non-Microsoft applications with Surface Hubs.
- Continue to evolve the physical workspace.



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Categories Of Investment

The composite organization experienced the following costs associated with an investment in Surface Hub:

- **Microsoft fees:** Microsoft fees included device acquisition costs and annual device service fees. Fees for Teams and other Microsoft software are not included in calculations as that software typically is already in place. The per-device cost for a Surface Hub varies based on the installation method (wall mount versus mobile cart) and also may vary slightly across markets. A Meeting Room services subscription is required for Skype for Business/Teams video conferencing and calling, which is a core function of the Surface Hub. Alternately, Microsoft customers who have Enterprise Agreements (EAs) may elect to use an E3/E5 license as part of their EA. Surface Hub ships with Word, PowerPoint, Excel, and PowerBI, which can be used to present and review at no charge. The whiteboard application (used for co-creation and brainstorming) is available within Teams at no additional charge. Optional items include a mobile battery (for use with the mobile stand) and two- or three-year extended warranties. **Microsoft fees for Surface Hub over three years had a risk-adjusted total present value of \$5.5 million.**
- **Internal labor costs for implementation, management, and support:** Interviewed organizations typically implemented Surface Hub using internal IT and facilities staff with informal assistance from Microsoft. Implementation also included end user communications and training, which interviewed organizations cited as critical to Surface Hub adoption and successful use. Ongoing labor costs included support of the Surface Hubs and end users. **The composite organization incurred initial and ongoing internal labor costs for Surface Hub totaling \$4.0 million.**



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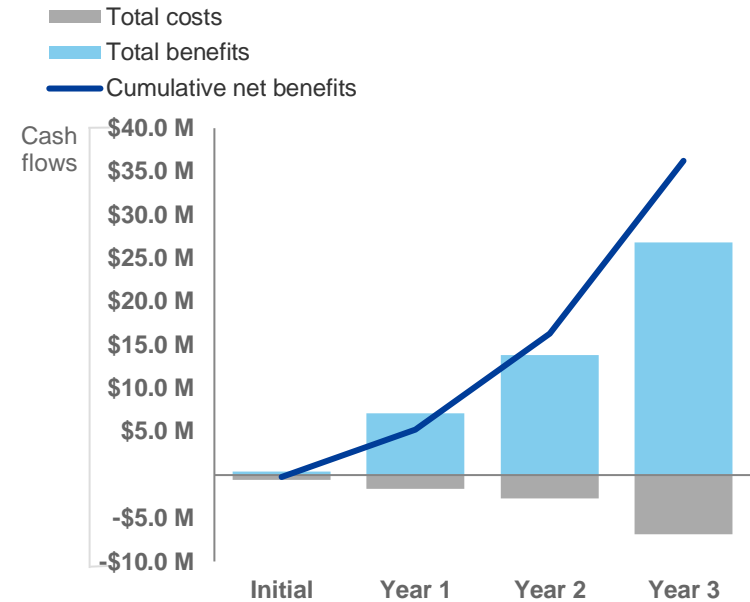
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Results And Financial Summary

The financial results calculated in the Benefits and Costs sections can be used to determine the ROI, NPV, and payback period for the organization's investment in Surface Hub. These values are determined by applying Forrester's risk-adjustment values to the unadjusted results in each relevant cost and benefit. The financial results exclude any contribution from unquantified benefits or future flexibility described on slide 16 of this study.

- The risk-adjusted ROI is **302%**.
- The risk-adjusted NPV is **\$28.9 million**.
- The payback period is **<6 months**.

See Appendix for more details.



	INITIAL	YEAR 1	YEAR 2	YEAR 3	TOTAL	PRESENT VALUE
Costs	(\$624,808)	(\$1,649,792)	(\$2,754,297)	(\$6,866,727)	(\$11,895,623)	(\$9,559,971)
Benefits	\$393,750	\$7,108,437	\$13,825,397	\$26,795,969	\$48,123,552	\$38,414,122
Net benefits	(\$231,058)	\$5,458,646	\$11,071,100	\$19,929,242	\$36,227,929	\$28,854,151
ROI						302%
Payback period						<6 months

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Appendix: Total Economic Impact

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.
- › **Costs** consider all expenses necessary to deliver the proposed value, or benefits, of the product.
- › **Flexibility** represents the strategic value that can be obtained for some future additional investment building on top of the initial investment already made.
- › **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. 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.

Readers should be aware of the following key disclosures:

- The study is commissioned by Microsoft and delivered by the Forrester Consulting group.
- Forrester makes no assumptions as to the potential return on investment (ROI) that other organizations will receive. Forrester strongly advises that readers should use their own estimates within the framework provided in the report to determine the appropriateness of an investment in Surface Hub.
- Microsoft 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.
- The interviewed customers were provided by Microsoft.
- Forrester does not endorse Microsoft or its products.



Present value (PV)

The present or current value of (discounted) cost and benefit estimates given at an interest rate (the discount rate).



Net present value (NPV)

The present or current value of (discounted) future net cash flows given an interest rate (the discount rate).



Return on investment (ROI)

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



Discount rate

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



Payback period

The breakeven point for an investment.