



# AREA ROI Calculator Overview

**April 2020**

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# ROI Calculator Overview & Goals

# ROI Calculator Goals

The AREA ROI Calculator aims to help organisations:

- Understand the value of Enterprise AR use cases within their business
- Provide tools to inform management to support investment decisions
- Benefit from a broader view of aggregated data from across the AR ecosystem

*Captured data will help the AREA to communicate data-driven ROI info to the wider AR community*

# ROI Calculator Overview

The AREA ROI Calculator is a comprehensive web-based tool:

- Available to AREA members and registrants
- Supports input of data that encompasses:
  - Potential costs saved and increased revenues
  - User, Manager, IT and Consultancy costs
  - Initial and ongoing training costs
  - AR software, hardware and supporting IT infrastructure costs
  - Multiple currencies
- Reports results in multiple formats (CSV, PDF, Excel)
  - Multi-year view of costs, ROI and NPV
- Five different datasets per user
  - To support 'what-if' calculations
- Starter template for new users
- Non-editable 'demo template' for non-registrants

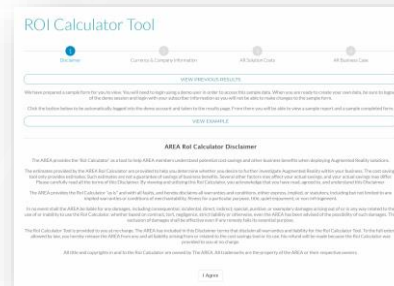


The screenshot shows the 'ROI Calculator Results' interface. It displays a table with columns for 'Year 0', 'Year 1', 'Year 2', 'Year 3', and 'Totals'. The table is divided into two main sections: 'Summary Annual Allocation' and 'ROI Analysis'.

Category	Year 0	Year 1	Year 2	Year 3	Totals
<b>Summary Annual Allocation</b>					
ROI Analysis					
Net cash flow before taxes	\$ 153,200	\$ 644,300	\$ 644,300	\$ 644,300	\$1,546,875
Net cash flow after taxes	\$ 153,200	\$ 644,300	\$ 644,300	\$ 644,300	\$1,546,875
<b>Annual ROI</b>					
Net Present Value (NPV)	\$ 100,000	\$ 114,000	\$ 114,000	\$ 114,000	\$ 114,000
Compound Cash Flow	\$ 100,000	\$ 114,000	\$ 114,000	\$ 114,000	\$ 114,000
<b>Payback period in years</b>					
<b>Benefits</b>					
User Productivity Improvements	\$0	\$800,200	\$800,200	\$800,200	\$1,960,675
Increased Profits	\$0	\$100,000	\$100,000	\$100,000	\$300,000
Reduced Hardware & Software Costs	\$0	\$50,000	\$50,000	\$50,000	\$175,000
Reduced Audit Costs	\$0	\$500	\$500	\$500	\$1,500
Reduced Inventory Carrying Costs	\$0	\$400	\$400	\$400	\$1,200
Other Direct Costs Savings	\$0	\$5000	\$5000	\$5000	\$15,000
Other Indirect Benefits	\$0	\$5000	\$5000	\$5000	\$15,000
<b>Total Benefits</b>	\$0	\$1,000,200	\$1,000,200	\$1,000,200	\$2,250,675
<b>Costs - Operational Expenses</b>					
Software	\$0	\$0	\$0	\$0	\$0

# General Principles

- Users must have an account and be logged in to the AREA portal
  - Your individual data will not be shared
  - Anonymised and aggregated data (across many users) may be reported later
- All data entered is saved 'as you go'
  - Just return to edit and continue...
- Complete as much as you can
  - Each item **must** have an entry –
    - Either find out the real answer or make an educated estimate (if unable, enter a zero)
- You can maintain up to five versions at a time
  - Add meaningful comments when updating/saving the ROI



The screenshot shows the 'ROI Calculator Results' interface. It displays a table with columns for 'Year 1', 'Year 2', 'Year 3', and 'Totals'. The table is divided into two main sections: 'Summary Annual Allocation' and 'ROI Analysis'. The 'Summary Annual Allocation' section shows a total of \$1,000,000. The 'ROI Analysis' section shows a total of \$1,000,000. The table includes various line items such as 'Net cash flow before taxes', 'Net cash flow after taxes', 'Annual ROI', 'Net Present Value (NPV)', 'Cumulative Cash Flow', and 'Payback period in years'. The 'Benefits' section shows a total of \$1,000,000. The 'Costs' section shows a total of \$1,000,000.

Year	Year 1	Year 2	Year 3	Totals
Net cash flow before taxes	\$100,000	\$100,000	\$100,000	\$300,000
Net cash flow after taxes	\$100,000	\$100,000	\$100,000	\$300,000
Annual ROI	10.0%	10.0%	10.0%	10.0%
Net Present Value (NPV)	\$100,000	\$100,000	\$100,000	\$300,000
Cumulative Cash Flow	\$100,000	\$200,000	\$300,000	\$600,000
Payback period in years	3.0	3.0	3.0	3.0
Benefits	\$100,000	\$100,000	\$100,000	\$300,000
Costs	\$100,000	\$100,000	\$100,000	\$300,000

Navigate between topics by clicking on the headings

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# Getting Started

# Getting Started – ROI calculator home page



ROI calculator is available here: <https://thearea.org/roi-calculator-tool/>

## ROI Calculator Tool

1  
Disclaimer

2  
Currency & Company Information

3  
Productivity improvements and cost savings

4  
AR solution and deployment costs

[VIEW PREVIOUS RESULTS](#)

We have prepared a sample form for you to view. You will need to login using a demo user in order to access this sample data. When you are ready to create your own data, be sure to logout of the demo session and login with your subscriber information as you will not be able to make changes to the sample form.

Click the button below to be automatically logged into the demo account and taken to the results page. From there you will be able to view a sample report and a sample completed form.

[VIEW EXAMPLE](#)

### AREA Rol Calculator Disclaimer

The AREA provides the 'Rol Calculator' as a tool to help AREA members understand potential cost savings and other business benefits when deploying Augmented Reality solutions.

The estimates provided by the AREA Rol Calculator are provided to help you determine whether you desire to further investigate Augmented Reality within your business. The cost savings tool only provides estimates. Such estimates are not a guarantee of savings of business benefits. Several other factors may affect your actual savings, and your actual savings may differ. Please carefully read all the terms of this Disclaimer. By viewing and utilizing this Rol Calculator, you acknowledge that you have read, agreed to, and understand this Disclaimer.

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☐ I Agree

Process steps

View previous results (if any) stored against your login credentials

START HERE

View a pre-filled starter example

# First page – some basics

## ROI Calculator Tool

1

2

3

4

Disclaimer

Currency & Company Information

Productivity improvements and cost savings

AR solution and deployment costs

Please complete all of the metrics outlined below based on your companies current status. All fields are required in order to calculate ROI and NPV correctly.

Currency

Select your preferred currency \*

Dollar

Tax Rate

Enter your corporate tax rate (Percentage %)

21

Cost of Capital

Enter your corporate cost of capital below (Percentage %) \*

6

Life of Assets

Select life of assets

3 Years

Previous

Next

Options:  
USD, RMB, EUR, GBP

Varies e.g.  
US = 21%  
UK = 19%

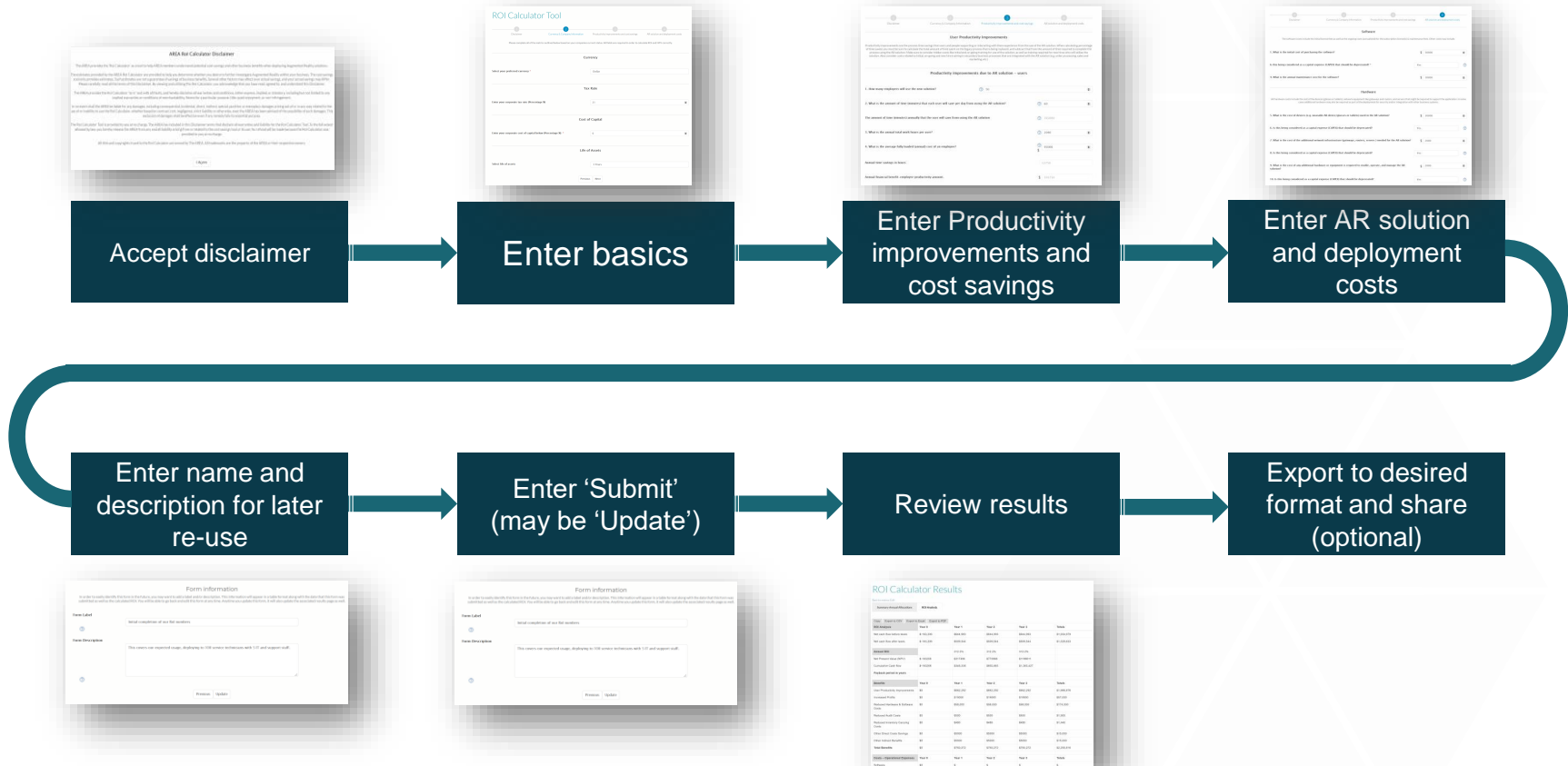
Obtain from  
corporate finance.

Click to complete  
data entry.

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# Entering data

# Overview of workflow – first usage



# Topic: Productivity improvements and cost savings

## Overview of sections:

### Productivity improvements:

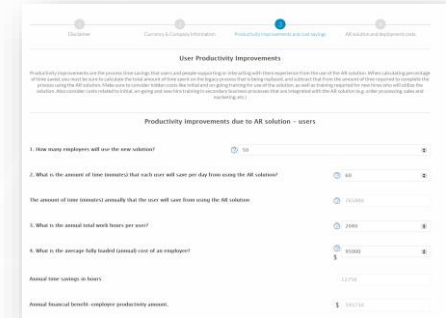
1. Due to AR solution – users
2. Productivity improvements due to AR solution – managers
3. Productivity improvements due to AR solution – others

### Reduced costs:

1. Hardware & Software Costs
2. Inventory Carrying Costs

### Other

1. Increased Profits
2. Reduced Audit/Accounting Costs
3. Other Benefits



**User Productivity Improvements**

Productivity improvements are the positive time savings that users and managers experience by using the AR solution. AR users can add by annual age-related assets, you can use to calculate the total amount of time spent on the logistics process that is being reduced, and submit that from the amount of time required to complete the process using the AR solution. This can be used to consider differences between the solution and existing processes, as well as changes regarding new features and updates the solution. Also consider costs related to initial, on-going and new hire training or resources in new processes that are integrated with the AR solution, order processing, sales and marketing, etc.

**Productivity Improvements due to AR solution – users**

1. How many employees will use the new solution?

2. What is the amount of time (minutes) that each user will save per day from using the AR solution?

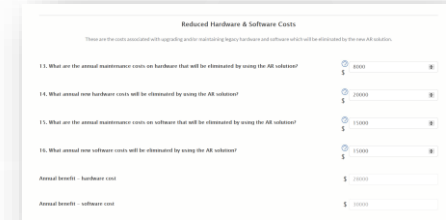
The amount of time (minutes) annually that the user will save from using the AR solution:

3. What is the annual total work hours per user?

4. What is the average fully loaded (annual) cost of an employee?

Annual time savings in hours:

Annual financial benefits employee productivity process:



**Reduced Hardware & Software Costs**

These are the costs associated with supporting and/or maintaining legacy hardware and software which will be eliminated for the new AR solution.

13. What are the annual maintenance costs on hardware that will be eliminated by using the AR solution?

14. What annual new hardware costs will be eliminated by using the AR solution?

15. What are the annual maintenance costs on software that will be eliminated by using the AR solution?

16. What annual new software costs will be eliminated by using the AR solution?

Annual benefits hardware cost:

Annual benefits software cost:

# Topic: AR solution and deployment costs

## Overview of sections:

### AR solution costs:

1. Software
2. Hardware

### Labor costs:

1. Deployment
2. Initial training
3. Ongoing annual training
4. Ongoing management and integration

### Consulting and professional services costs:

1. Deployment and training
2. Content adaptation
3. Integration

The screenshot displays the AREA AR solution cost calculator interface, which is organized into four main sections: Overview, Company & Company Information, Productivity improvements and cost savings, and AR solution and deployment costs. The 'AR solution and deployment costs' section is currently active and is divided into three sub-sections: Software, Hardware, and Deployment.

**Software Section:**

- 1. What is the initial cost of purchasing the software? \$ 30000
- Is this being considered as a capital expense (CAPEX) that should be depreciated? Yes
- 4. What is the annual maintenance cost for the software? \$ 80000

**Hardware Section:**

- 5. What is the cost of devices (e.g. wearable AR devices/glasses or tablets) used in the AR solution? \$ 30000
- 6. Is this being considered as a capital expense (CAPEX) that should be depreciated? Yes
- 7. What is the cost of the additional network infrastructure (gateways, routers, servers) needed for the AR solution? \$ 2000
- 8. Is this being considered as a capital expense (CAPEX) that should be depreciated? No
- 9. What is the cost of any additional hardware or equipment is required to enable, operate, and manage the AR solution? \$ 2000
- 10. Is this being considered as a capital expense (CAPEX) that should be depreciated? Yes

**Deployment Section:**

- 12. What is the total number of line of business employees that will take part in the deployment of the AR solution? 6
- 13. What is the total number of hours that line of business staff will spend per person on the deployment of the AR solution? 20
- 14. What is the average fully loaded annual cost of a line of business employee? \$ 93000
- Total deployment costs, line of business employees: \$ 1100
- Is this being considered as a capital expense (CAPEX) that should be depreciated? Yes
- 15. What is the total number of IT employees that will take part in the deployment of the AR solution? 1
- 16. What is the total number of hours that each IT employee will spend on the deployment of the AR solution? 80
- 17. What is the average fully loaded annual cost of an IT employee? \$ 100000
- Total deployment costs, IT employees: \$ 11700
- 18. Is this being considered as a capital expense (CAPEX) that should be depreciated? Yes
- 19. What is the total number of managers that will take part in the deployment of the AR solution? 1
- 20. What is the total number of hours that managers will spend on the deployment of the AR solution? 10
- 21. What is the average fully loaded cost of a manager? \$ 100000
- Total deployment costs, managers: \$ 120

# Editing existing entries



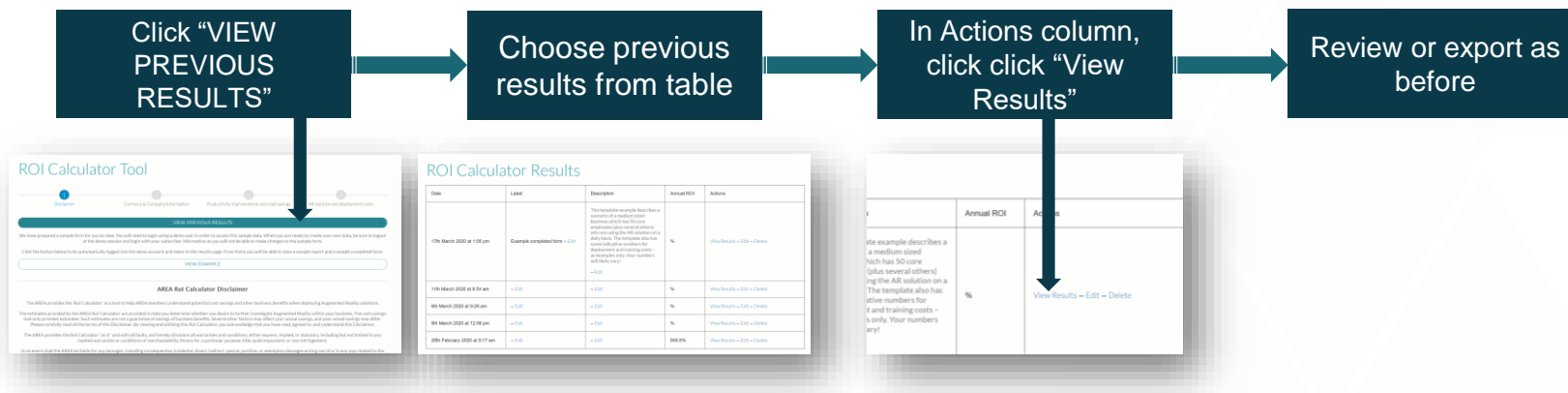
You can easily return to previously completed forms.  
The system maintains up to five forms per user.

<https://thearea.org/roi-calculator-tool/>

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# Viewing the results

# Viewing previous results



You can also go directly to: <https://thearea.org/roi-calculator-results/>

# Viewing the results

Two sets of results available:

- Summary of annual allocations
  - Year by year costs and saving
- ROI analysis showing year by year:
  - Cash flow before/after taxes
  - NPV
  - Costs/savings
  - Depreciation schedule
- All results can be exported
  - CSV
  - Excel
  - PDF
  - Copy to clipboard

# ROI Calculator Results

Summary Annual Allocation

ROI Analysis

Year	Expense in \$K	Expense in \$K	Expense in \$K	Expense in \$K	Totals
ROI Analysis					
Net Cash Flow before taxes	\$ 150,000	\$884,800	\$844,000	\$1,000,000	\$1,938,800
Net Cash Flow after taxes	\$ 150,000	\$800,844	\$768,244	\$900,000	\$1,669,132
Annual ROI		212.2%	212.2%	212.2%	
Net Present Value (NPV)	\$ 160,000	\$274,886	\$77,886	\$1,088,811	
Payback period in years	\$ 160,000	\$396,000	\$880,886	\$1,969,697	
Benefits					
Year 0	Year 1	Year 2	Year 3	Totals	
User Productivity Improvements	\$0	\$462,282	\$462,282	\$462,282	\$1,386,846
Increased Profits	\$0	\$19,000	\$19,000	\$19,000	\$57,000
Reduced Hardware & Software Costs	\$0	\$58,000	\$58,000	\$58,000	\$174,000
Reduced Audit Costs	\$0	\$500	\$500	\$500	\$1,500
Reduced Inventory Carrying Costs	\$0	\$480	\$480	\$480	\$1,440
Other Direct Costs Savings	\$0	\$5,000	\$5,000	\$5,000	\$15,000
Other Indirect Benefits	\$0	\$5,000	\$5,000	\$5,000	\$15,000
Total Benefits	\$0	\$790,272	\$790,272	\$790,272	\$2,370,816
Costs - Operational Expenses					
Year 0	Year 1	Year 2	Year 3	Totals	
Software	\$0	\$	\$	\$	
Hardware	\$0	\$5,000	\$5,000	\$5,000	\$15,000
Labor	\$0	\$14,877	\$14,877	\$14,877	\$44,631
Consulting	\$0	\$0	\$0	\$0	\$0
Total Operational Expenses	\$0	\$5	\$5	\$5	\$5
Costs - Capitalized Assets					
Year 0	Year 1	Year 2	Year 3	Totals	
Software	\$10,000	\$10,000	\$10,000	\$10,000	\$50,000
Hardware	\$24,000	\$11,111	\$11,111	\$11,111	\$56,222
Labor	\$2754	\$5,000	\$5,000	\$5,000	\$12,754
Consulting	\$22,001	\$12,000	\$12,000	\$12,000	\$56,001

Process steps

Export

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# Thank you

Please provide feedback to:

[michael@thearea.org](mailto:michael@thearea.org)