



# ROI Guide for ECM:

Real-world Approaches from Organizations  
that Have Successfully Secured Funding

## INTRODUCTION

When you are building a business case to invest in purchasing or expanding an ECM system, determining your organization's return on investment (ROI) is essential to securing funding. Calculating ROI is an exercise that helps you identify and quantify the business value you will gain from investing in ECM, but many organizations struggle to find an accurate methodology for calculating ROI.

This guide contains two battle-tested approaches to calculating ROI from organizations that have successfully secured funding for their ECM implementation.

- ▶ **Ramsey County, MN**, has put together an approach to ROI that highlights the quantitative benefits of ECM. This approach can be easily adapted to help you identify the cost savings that are possible within your organization.
- ▶ **PSALM Corporation** has created a cost-benefit analysis designed to help organizations that have already invested in ECM secure buy-in from additional departments. This analysis will help you identify the process improvements associated with ECM and quantify them using an efficiency rate.

We invite you to tap into their knowledge to help your organization make an informed decision to invest in ECM, reaping the benefits for many years to come!

# Ramsey County's ROI Guide for ECM



Identify areas of possible cost savings with this investment (ROI) guide.

Contributed by : Ramsey County, MN

## 1. Estimate current document handling and storage costs.

For each cost factor, find out how much is currently spent on a monthly basis. The example below is for a relatively small office, with only 10 employees that handle paper documents. Expand and adjust accordingly for your unit.

Cost Factor	Example	Monthly Calculation
<b>Labor Costs</b>		
Number of FTEs who handle paper documents	10	Assume 8 hours/day and 22 working days/month
Average hourly salary of paper-handling staff	\$15/hour	Monthly cost of a minute's worth of work by each employee per day: = (\$15/hr x 22 days x 10 FTEs) /60 = \$55
Time spent by each FTE retrieving documents each day	40 minutes	= 40 min x \$55 = \$2,200/month
Time spent by each FTE filing each day	20 minutes	= 20 min x \$55 = \$1,100
Time spent by each FTE making copies each day	5 minutes	= 5 min x \$55 = \$275
Time spent by each FTE recreating existing information	20 minutes	= 20 min x \$55 = \$1,100
Time spent by each FTE faxing documents each day	5 minutes	= 5 min x \$55 = \$275
Total Labor Costs		\$4,950
<b>Copying Costs</b>		
Number of paper copies generated each day (pages)	200	= 200/day x 22 days x \$0.015/copy = \$66
Cost per copy (paper, toner, ink)	\$0.015	
Total Copying Costs		\$66
<b>Storage Costs</b>		
Amount spent on physical offsite storage per month	\$150	= \$150
Hours spent per month accessing offsite storage	2 hours	= 2 hrs x \$15/hr = \$50
Amount spent on filing supplies	\$50	= \$50
Total Storage Costs		\$230
<b>Distribution Costs</b>		
Amount spent on overnight delivery services and postage per month	\$150	= \$150
Number of faxes sent per day (pages)	20	= 20/day x 22 days x \$0.015/copy = \$66
Cost per fax (page)	\$0.15	
Total Storage Costs		\$216
<b>Total Document Handling Costs</b>		<b>\$5,462</b>

**2. Estimate the impact of a document management system on your operations.** For each cost item, estimate how much of a reduction can be expected as a result of implementing ECM. Think realistically about the effect the new system will have on the enterprise operations. Build sensitivity analysis into calculations through the use of best-case and worst-case scenarios for various factors. The values below are simply suggestions.

Cost Item	Best-Case	Worst-Case
Time spent locating and retrieving documents	75%	50%
Time spent filing documents	75%	50%
Time spent copying documents	50%	25%
Number of copies generated	50%	25%
Time spent recreating existing information	90%	75%
Time spent faxing documents	50%	25%
Amount spent on offsite storage	75%	50%
Time spent accessing offsite storage	50%	25%
Amount spent on filing supplies	50%	25%
Amount spent on overnight delivery services and postage	50%	25%
Number of faxes sent	50%	25%

### 3. Multiply the savings (percentages) by your initial cost factors.

This provides a best- and worst-case scenario of the monthly savings that your unit will realize as a result of more efficient content management.

Cost Factor	Example	Best-Case	Worst-Case
<b>Labor Costs</b>			
Number of FTEs who handle paper documents Average hourly salary of paper-handling staff	10 \$15/hour	Assume 8 hours/day and 22 working days/month  Monthly cost of a minute's worth of work by each employee per day: = (\$15/hr x 22 days x 10 FTEs) /60 = \$55	Assume 8 hours/day and 22 working days/month.  Monthly cost of a minute's worth of work by each employee per day: = (\$15/hr x 22 days x 10 FTEs)/60 = \$55
Time spent by each FTE retrieving documents each day	40 minutes	Assuming 75% time savings: = 40 (0.25) min x \$55 = \$550/month	Assuming 50% time savings: = 40 (0.5) min x \$55 = \$1,100/month
Time spent by each FTE filing each day	20 minutes	Assuming 75% time savings: = 20 (0.25) min x \$55 = \$275/month	Assuming 50% time savings: = 20 (0.5) min x \$55 = \$550/month
Time spent by each FTE making copies each day	5 minutes	Assuming 50% time savings: = 5 (0.5) min x \$55 = \$136/month	Assuming 50% time savings: = 5 (0.75) min x \$55 = \$206
Time spent by each FTE recreating existing information	20 minutes	Assuming 90% time savings: = 20 (0.1) min x \$55 = \$110/month	Assuming 75% time savings: = 20 (0.25) min x \$55 = \$275/month
Time spent by each FTE faxing documents each day	5 minutes	Assuming 50% time savings: = 5 (0.5) min x \$55 = \$136	Assuming 25% time savings: = 5 (0.75) min x \$55 = \$206
New Labor Costs		\$1,207	\$2,337
Total Labor Savings		= \$4,950 - \$1,207 = \$3,743	= \$4,950 - \$2,337 = \$2,613

[Chart continued on next page]

Cost Factor	Example	Best-Case	Worst-Case
<b>Copying Costs</b>			
Number of paper copies generated each day (pages)	200	Assume 50% reduction: = 200/day (0.5) x 22 days x \$0.015/copy = \$33	Assume 25% reduction: = 200/day (0.75) x 22 days x \$0.015/copy = \$50
Cost per copy (paper, toner, ink)	\$0.015		
New Copying Costs		\$33	\$50
Total Copying Savings		= \$66 - \$33 = \$33	= \$66 - \$50 = \$16
<b>Storage Costs</b>			
Amount spent on physical offsite storage per month	\$150	Assume 75% savings: = \$150 (0.25) = \$38	Assume 50% savings: = \$150 (0.5) = \$75
Hours spent per month accessing offsite storage	2 hours	Assume 50% savings: = 2 hours (0.5) x \$15/hr = \$15	Assume 25% savings: = 2 hours (0.75) x 15/hr = \$23
Amount spent on filing supplies	\$50	Assume 50% savings: = \$50 (0.5) = \$25	Assume 25% savings: = \$50 (0.75) = \$38
New Storage Costs		\$78	\$136
Total Storage Savings		= \$230 - \$78 = \$152	= \$230 - \$136 = \$94
<b>Distribution Costs</b>			
Amount spent on overnight delivery services and postage per month	\$150	Assume 50% reduction: = \$150 (0.5) = \$75	Assume 25% reduction: = \$150 (0.75) = \$113
Number of faxes sent per day (pages)	20	Assume 50% reduction: = 20/day (0.5) x 22 days x \$0.15 = \$33	Assume 25% reduction: = 20/day (0.75) x 22 days x \$0.15 = \$50
Cost per fax (page)	\$0.15		
New Distribution Costs		\$108	\$163
Total Distribution Savings		= \$216 - \$108 = \$108	= \$216 - \$163 = \$53
<b>New Document Handling Costs (Monthly)</b>		<b>\$1,426</b>	<b>\$2,686</b>
<b>Total Monthly Document Handling Savings</b>		<b>\$4,036</b>	<b>\$2,686</b>
<b>Annualized Document Handling Savings</b>		<b>\$48,432</b>	<b>\$33,312</b>

#### 4. Outline the costs associated with ECM.

These costs will vary significantly from department to department, especially in the area of conversion expenses (i.e. document imaging required to convert paper documents into digital files).

#### 5. Calculate ROI.

The return on investment should be the net annualized document handling savings divided by the total ECM costs, as a percentage. Using best- and worst-case scenarios should enable managers to arrive at a high and low estimate for the ROI.

$$\frac{\left( \text{Annualized Document Handling Savings} - \text{Total ECM Costs} \right)}{\text{Total ECM Costs}} \bullet 100 = \text{ROI \%}$$

#### 6. List additional savings and benefits gleaned from ECM.

The ROI calculations above only take into account acutely measurable benefits. Consider as well the following categories when making a business case in support of ECM. If any of the items below can be quantified, they should certainly be added to the calculations above.

- ▶ **Regulatory compliance.** An ECM system may be less of a choice, and more a requirement. Regulations such as HIPAA enforce guidelines for document retention and retrieval in public entities.
- ▶ **Communication and collaboration.** More readily available documents improve collaboration and idea-sharing among employees.
- ▶ **Project management.** Better access to information can shorten cycle times for projects and improve teamwork.
- ▶ **Security and access control.** Digitization of information allows a greater degree of control and monitoring of access to sensitive information.
- ▶ **Disaster recovery planning.** Computer archives can be easily backed up or sent to off-site locations. Digitized data is much less likely to be lost or misplaced.
- ▶ **Consolidation of information.** A central information repository makes it easier to access information, reduces error rates and multiple copies, allows easier version control and better serves clients because all client information is in one place.
- ▶ **Reduced carbon footprint.** The amount of paper wasted by an enterprise can be significantly reduced when using digital documents instead of paper. This not only saves on excessive cost, it also optimizes workflow.

# Create Your Own Cost-Benefit Analysis



Help other departments justify ECM adoption by creating a cost-benefit analysis.

Contributed by: Helen San Pedro, Information Technology Department Manager, PSALM Corporation

## What information do you need to create a cost-benefit analysis?

In order to create an effective cost-benefit analysis, you need to know your pre-ECM process. Ask yourself these questions:

- ▶ How many employees dealt with documents on a daily basis?
- ▶ On average, how many documents were retrieved, copied, scanned and stored daily?
- ▶ How long did it take to process those documents?
- ▶ What were your expenses?
  - Onsite/offsite storage.
  - Printing (paper and ink).
  - Labor costs of employees.

Think about your transition to ECM. Consider:

- ▶ How much did your implementation cost?
  - Software.
  - Licensing.
  - Hardware.
- ▶ How much time did you save on document processing?
  - Retrieving.
  - Scanning.
  - Copying.
  - Storing.
- ▶ How much did you save on hard costs?
  - Paper.
  - Freight charges.
  - Storage charges.
  - Printer maintenance.

Next set a timeframe for which you will generate the cost-benefit analysis. We chose a month, but you can choose whichever timeframe works for you.

## How do you put together a cost-benefit analysis?

It is now time to compile all of this information into one document.

**Note:** The process described below relates to our particular case—your analysis may look different based on your organization’s business requirements.

1. We compiled everything in Microsoft Excel. The analysis was divided into several sections:
  - ▶ Document filing and retrieval.
  - ▶ Document printing and reproduction.
  - ▶ Document storage and freight charges.
  - ▶ Laserfiche investment (expenses associated with Laserfiche implementation).
  
2. In each section, we inserted one column for expenses associated with the pre-ECM practice and another column for the expenses post-implementation.
  
3. In order to calculate the post-implementation expenses, we used an Efficiency Rate (a rate by which time or expenses were reduced after implementation of Laserfiche). We obtained this rate from a consulting firm and then modified it based on our own experience. The Efficiency Rate varied by process.
  
4. We used the Efficiency Rate to calculate the new expenses as follows:

$$\text{Expense after ECM} = \text{Expense before ECM} * (1 - \text{Efficiency Rate})$$

**Example:** To analyze the cost of offsite storage we took into account both the monthly cost of renting the storage facility and the cost of document retrieval. Since we are now only storing 25% of all hard-copies of documents in the facility, we used an **Efficiency Rate** of 75%. We calculated the post-ECM expense by using the formula described above.

	Description	Pre-ECM Expense	Efficiency Rate	Post-ECM Expense
Cost of offsite storage in a month (including search, retrieval, delivery, etc)	Monthly Offsite + Retrieval Cost	33,406.47	75%	8,351.62

5. Finally, in order to make this analysis easier to share with others, we condensed the major sections:

ECM COST-BENEFIT ANALYSIS			
Particulars	Current Practice	Laserfiche	
	Amount (per month)	Efficiency Rate	Amount (per month)
<b>DOCUMENT FILING AND RETRIEVAL</b>			
Cost of Document Filing	25,033.00	75%	6,258.25
Cost of Document Retrieval	12,516.50	75%	3,129.13
<b>Total Cost of Document Filing and Retrieval</b>	<b>37,549.50</b>		<b>9,387.38</b>
<b>DOCUMENT PRINTING AND PHOTOCOPYING</b>			
Office Supplies Consumption <i>Source: AGSD</i>	97,135.48	50%	48,567.74
Labor Cost of Printing/Photocopying	25,033.00	50%	12,516.50
<b>Total Cost of Printing/Photocopying</b>	<b>122,168.48</b>		<b>61,084.24</b>
<b>DOCUMENT STORAGE &amp; FREIGHT</b>			
Off-site Storage Cost (including search, retrieval, delivery, etc.)	33,406.47	75%	8,351.62
In-house Storage Cost	35,000.00	75%	8,750.00
Freight Charges	3,000.00	50%	1,500.00
<b>Total Cost of Document Storage and Freight</b>	<b>71,406.47</b>		<b>18,601.62</b>
<b>Total Labor Cost, Supplies &amp; Freight</b>	<b>231,124.45</b>		<b>89,073.23</b>
Laserfiche Investment			103,713.06
<b>TOTAL:</b>	<b>231,124.45</b>		<b>192,786.30</b>
<b>SAVINGS:</b>			<b>38,338.15</b>
<b>%</b>			<b>17%</b>

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