



# Writing an Asset Management System Business Case

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## Introduction

*The intent of this paper is to provide the critical elements and methodology for writing a business case for the acquisition of an asset management system. This paper is designed to be used as a template where asset management professionals will be able to tailor this outline and calculator to the unique goals and objectives of their organization.*

## What is a business case?

An effective business case is a multi-purpose document that generates the support, participation and leadership commitment required to transform an idea into reality. A business case identifies an idea, problem or opportunity. It provides context and content around the problem and equally illustrates the desired objectives and outcomes. The problem and desired outcomes are defined and described in addition to how and who will be affected. The how and who typically revolve around individual or organization behavioral changes; also known as change management. Change management also involves the people and process changes that would be required. The ideal business case will identify all alternatives that were examined, their associated impacts, risks, costs and benefits.

## Why should an asset management business case be written?

A business case is the single-most important document in helping leadership and management understand the business value of an investment or business opportunity. It is the asset management team's goal to present overwhelming and compelling justification for the funding of an asset management system and demonstrate how the acquisition is in line with the goals and objectives of the organization.

The most obvious reason for putting together a business case is to justify the resources and capital investment necessary for the acquisition of a new asset management system. However, this implies that the business case is simply a financial document. While it's critical for your business case to include financial justification, it should not be the only purpose of the document.

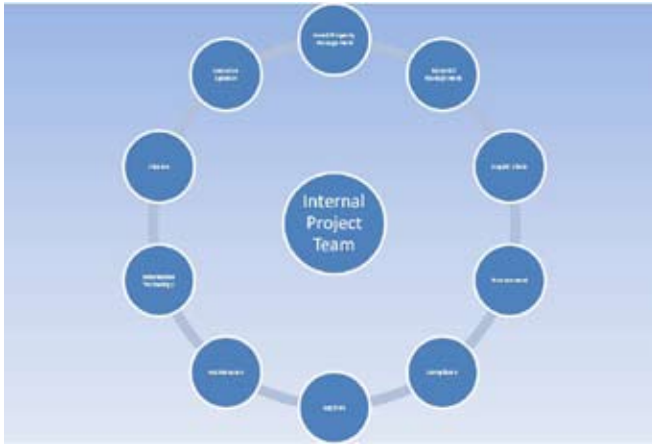
The business case is the one place where all relevant facts are documented and linked together into a cohesive story. This story tells people about the what, when, where, how and why.

- What is the recommended solution(s)?
- What will happen to the business if this effort is not undertaken (the do nothing scenario)?
- When will the solution be deployed?
- Where will the new system be deployed?
- How will the implementation of a new asset management system solve existing problems, challenges or opportunities facing the organization?
- How does the solution address the issues or opportunities (benefits)?
- How much money, people and time will be needed to deliver the solution and realize the benefits
- Why is there a need for a new asset management system?

## **Who should be involved?**

Assemble a team comprised of persons from across the organization to help build the business case. One of the most common mistakes is composing a team that will be too focused on the requirements of a single site/division or IT-focused and not considering the big-picture implications. Many functional areas across the organization will be impacted by the proposed new asset management system and many sites with varying requirements could potentially be in scope as well. It is important to recognize that a business case for an asset management system is a collaborative effort which most likely will require representation on the Internal Project Team (IPT) from the following cross-functional areas at each site/division:

- Asset/property management
- Material management
- Supply chain
- Procurement
- Compliance
- Logistics
- Maintenance
- Information technology
- Finance
- Executive sponsor
- Any (all) stakeholders who will be impacted by the proposal (this will ensure approval and ongoing support)



**Internal Project Team**

### Who should write the business case?

Although everyone on the IPT should contribute to the development of the business case, it doesn't mean everyone will be involved in writing it. Ideally, only one to two persons should be involved in the actual writing of the final document which will be based on all of the information collected. The business case writers should be team members who have an overall understanding of the entire project and can synthesize the multiple and varied plans into one document. Keeping the actual writers of the case to a minimum ensures a consistent style throughout the document.

While the overall objective of building the business case is to justify the investment in a new asset management system, it also serves the important purpose of setting a collaborative tone for the project and getting all parties on the same page and working toward a common goal.

Every milestone in the activity of the team should result in a contribution to the business case. For example, at the conclusion of the project planning phase, all of the key project information should be documented in the business case (description, business issues, scope, objectives, etc.).

### How much time should be spent on developing a business case?

The time and effort spent on a business case should be in proportion to the scope of the problem or opportunity. Depending on the scope of the project, it should take approximately 1 – 2.5 months to prepare an asset management system business case. The definitive answer for the amount of time allocated to develop a business case is: It takes as long as it takes. It is a function

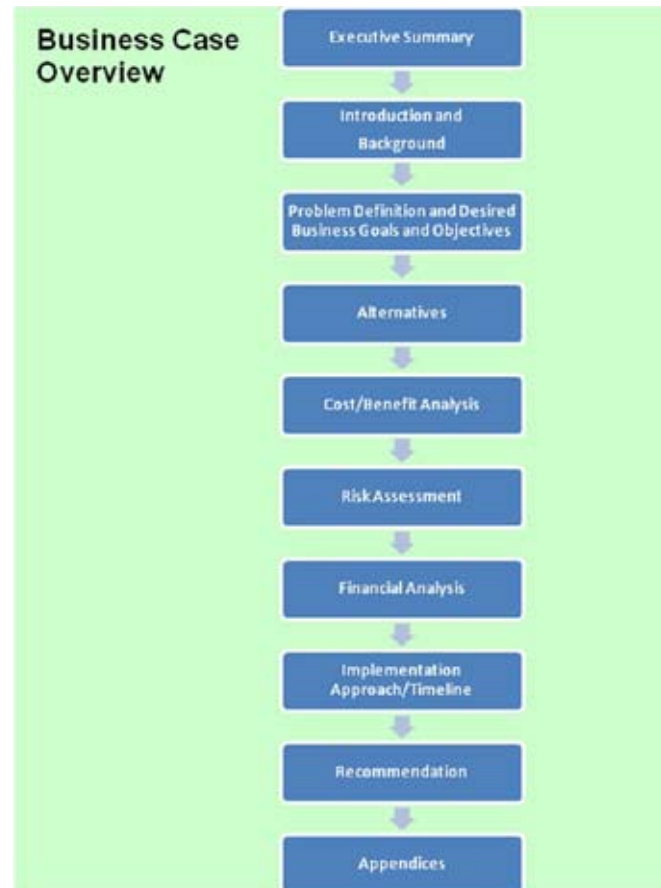
of time, commitment, understanding and resources.

The length of the business case should be kept to a minimum, ensuring it stays on topic, presents relevant information in a clear and concise manner, and is focused on the problem or opportunities the asset management system will address.

### Overall goals

While one of your primary goals may be to get funding for a new asset management system, your chances of success will be greater if you keep the following goals in mind as well:

- Tell your story
- Keep it clear and concise
- Minimize jargon and conjecture
- Communicate all important information - you've done your homework, here is the chance to prove it
- Provide the reader with a picture or vision of the end state
- Demonstrate the hard (financial cost savings) and soft (non-financial) benefits of the new asset management system



**Business Case Overview**

The benefits obtained by your team by writing the business case are many, but at a minimum they will have gained:

- Organization of thoughts, activities and knowledge
- An objective review of the ideas and facts of the project
- The ability to identify holes, inconsistencies or weaknesses in the effort
- An improved ability to communicate the purpose of the project
- Financial justification for their effort
- A great sense of accomplishment

## **Business Case Outline**

The following provides a general business case outline for the acquisition of an asset management system. By following the guidance provided, the resulting business case will be in a clear, easy to understand format, and contain the information required by management so that they may make their best informed decision regarding proposed business opportunities (approve,

deny or continue business case development efforts).

### ***Executive Summary***

The document should begin with a very brief summary of each section of the business case including a description of the problem, alternatives, cost/benefits and recommendation. Since the Executive Summary is dependent on the completion of all other elements of the business case, it should be written last.

### ***Introduction & Background***

Start with why the business case was developed by providing a very high level overview of the problem you are trying to solve (e.g. "We've out-grown our Excel spreadsheets," "We must address IUID reporting requirements," etc...) or a description of where you believe there is an opportunity for cost savings or business improvements through the implementation of a new asset management system.

It is also important to define the scope of the project in this section as well:

- What divisions/sites were included
- Brief overview of existing systems which would be impacted by any recommendation
- Estimated number of users of the new system
- Number and value of assets included in the business case
- What types of assets were examined (IT, test equipment, material, tools, etc...)
- What types of asset ownerships were examined (company or agency owned, government, etc...)

This section should also identify members of the IPT (and their roles) who contributed to this effort. You should not only list those who participated directly through the writing of this document, but also those persons interviewed, as this will add further credibility to your business case.

***Problem Definition and Desired Business Goal(s) and Objectives***

This section should identify the reasons for acquiring a new asset management system as well as a description of how the new system will help you achieve your goals.

First, specifically identify the current problem(s) facing your organization which you hope to solve with a new system. Some possibilities could include:

*Company/Agency Assets*

- We need to reduce the acquisition of unnecessary assets and increase the utilization of existing assets.
- We need seamless connectivity between our procurement system and asset management system to ensure the systems are reconciled, save time and reduce data processing errors.
- We must reduce the costs associated with supporting multiple asset and material management systems which are not integrated and lead to management misinformation.
- We need appropriate physical inventory tools in place to effectively perform an accurate inventory and reduce the costs of manual reconciliation
- We need an asset management tool that will enable us to schedule assets where/when needed to avoid costly production stoppages.

*Government Property*

- We need the ability to automatically generate government forms (e.g. DD 250, DD 1149, DD 1662, NASA 1018, etc...) to save time and reduce errors.
- We need a system for UID compliance including the

ability to interface with the UID Registry and Wide Area Work Flow (WAWF).

- We need a property disposition system to automatically interface with PCARSS to save time and reduce errors.
- We need a property disposition system to automatically interface with the GSA screening system to save time and reduce errors.
- We need a system to interface to the EPA's EPEAT system to save time and reduce errors.
- We need a system to help us better ensure our compliance to key regulatory mandates in order to avoid costly penalties and increased surveillance, reduce insurance costs, minimize borrowing costs, and to avoid risking our standing with existing/potential customers or our industry reputation.

Next, outline how the new system will specifically address each objective. Some examples for consideration include:

*Company/Agency Assets*

- By reducing the acquisition of unnecessary assets and increasing the utilization of existing assets, we estimate recurring annual savings of more than \$2.6M.
- Through the seamless connectivity between our procurement system and asset management system which would ensure reconciliation, save time and reduce data processing errors, we estimate recurring annual savings of more than \$ 140K.
- Through the replacement of our multiple existing asset and material management systems, recurring annual IT cost savings should exceed \$ 90K.
- By deploying appropriate physical inventory tools, we estimate recurring annual savings of more than \$45K.
- Through the deployment of an asset management tool that will enable us to schedule assets where/when needed, we estimate we could avoid potential production stoppages, saving the organization more than \$25K annually.

*Government Property*

- Through the deployment of an asset management system with the ability to automatically generate government forms (e.g. DD 250, DD 1149, DD 1662, NASA 1018, etc...), we estimate recurring annual savings of more than \$300K.
- Through the deployment of an asset management

system which will facilitate UID compliance through various interfaces, we estimate annual recurring savings of more than \$300K.

- By deploying an asset management system that could automatically interface to PCARSS, we estimate annual recurring savings of more than \$20K.
- By deploying an asset management system that could help us better ensure our compliance to key regulatory mandates, we estimate the annual recurring savings associated with avoiding costly penalties and increased surveillance, reduced insurance costs and minimized borrowing costs to be more than \$50K.

### ***Alternatives***

At least two viable alternatives to solve the problem should be identified. Each alternative should be analyzed on how well it addressed the objectives of the business case as well as the costs. These options may include:

- Do nothing
- Upgrade/enhance existing asset management system(s)

- Have IT build a new asset management system(s)
- Implement a vendor/third party system

Explore and outline in this section a short list of viable alternatives to the proposed project. This will give the business case credibility and prevent additional work if the management team asks for other options to consider.

In the event one of your options is to review and implement a vendor/third party system, I strongly encourage you to reference an article I contributed to *The Property Professional* in 2007 entitled, “Lessons Learned in Selecting a Property Management System” which contains the framework for evaluating vendors including recommendations on conducting the comparison including demonstration strategies.

### ***Cost/Benefit Analysis***

In this section you will need to prepare a detailed quantitative analysis of your anticipated benefits compared to estimated costs. This section will illustrate the level of accountability that executive management

will be looking for. When preparing this section, you should keep the following in mind:

- The cost/benefit analysis should identify both tangible (“hard dollar”) and intangible (“soft” dollar) project benefits.
- Quantify benefits whenever possible. Ideally express benefits in dollars saved but when that is not possible, outline hours saved, or describe the new efficiencies.
- The alternative chosen should be identified and the choice justified.
- The total project cost for each alternative needs to be identified. This includes software/database licensing costs, programming/analysis, installation, testing, training, documentation and on-going support and maintenance.

The cost/benefit analysis should answer all of the following questions:

- What are the benefits for implementing a new system
- How much will this project cost to implement and maintain?
- How much will this project save?
- What is the expected payback time?

#### *Asset Management System Calculator*

Please refer to the Asset Management System ROI (Return on Investment) Calculator for an example of potential elements of a Cost/Benefit Analysis. In order to help quantify the value of each benefit, the IPT should develop formulas for each item estimating the potential cost savings.

This sample Asset Management System Calculator should only be used as a template or starting point. It is critical that you tailor your analysis to include the business requirements and goals for your project in addition to the assumptions used in the formulas as well as all of the cost estimates. There are many ways to analyze the ROI for the acquisition of an asset management system but this example illustrates the expected benefits and costs in a well organized, easy to read format which would be appreciated by management when they review your business case.

This sample calculator takes into consideration a five-year analysis on ROI but many organizations want to achieve a break-even pay-back in three-years or less before making a capital expenditure such as a new asset management system. If after your analysis your estimated pay-back period is less than a three-year time period, the project is worthy of executive management

consideration. In the event your pay-back estimate is greater than five-years, it will be difficult securing management support to proceed.

Not all benefits can be measured in dollars and cents so the cost/benefits section of your business case should list “soft” (non-monetary) benefits as well which could potentially include items such as:

- Ease in training users on one system instead of several
- Employee moral
- Increased protection of critical data
- Minimize need of reliance on in-house system developers

#### **Risk Assessment**

This section should identify and address any potential risks to the project. This will demonstrate to executive management that you have considered this project from all angles and that there are strategies in place to overcome any potential challenges.

The risk analysis should identify potential constraints on the project which could include items such as:

- Budget – Plan to address potential financial limitations for the duration of project as well as challenges for funding approval.
- Schedule – Plan for ensuring appropriate resources are available from all functional areas as well as the necessary technical resources.
- Scope – Plan to limit scope to original business case as you can always go back and write another justification in the event of “scope creep.”
- Quality – Plan to address any challenges in the event the system implemented does not meet the expected level of quality.

It should be noted in this section how the IPT leader will monitor all risks throughout the project for the greatest chance of success.

#### **Financial Analysis**

In addition to the Cost/Benefit Analysis section, the Financial Analysis refers to reviewing the financial impact of the project to the organization’s financial statements. How will this project impact our capital budget, cash flow and profitability, as well as key financial ratios like Return on Net Assets (RONA)?

In the event the recommendation is to select a third party vendor supplied asset management application, it is important to carefully review their financial information in order to ensure their long-term viability. The last thing

Return On Investment Calculator

Number of Company/Agency Owned Assets	50,000
Avg. Acquisition Value of Company/Agency Owned Assets	\$7,500
Number of Government Owned Assets	10,000
Avg. Acquisition Value of Government Owned Assets	\$7,500
Total Number of Assets	60,000
Total Asset Value (Based on Avg. Acquisition Cost)	\$450,000,000

Avg. Hourly Compensation (Salary/Benefits) of Asset Management Staff	\$48.08
Total Annual Compensation (Salary/Benefits) of Asset Management Staff	\$1,000,000.00

Return	Components	Formula	Total Return	Year 1	Year 2	Year 3	Year 4	Year 5
Company/Agency Assets	Increase in redeployment of existing company/agency owned assets, thereby reducing the need to purchase additional assets	Assumes that by having visibility on all company/agency assets, organization will be able to achieve a 2% annual reduction in asset base in Year 1, 1.5% in Year 2 and .5% in Years 3-5 based on the average acquisition value of company/agency assets	\$16,760,000.00	\$7,500,000.00	\$5,825,000.00	\$1,375,000.00	\$1,675,000.00	\$1,675,000.00
	Reduced depreciation expense	Assumes organization will no longer depreciate the 2% annual reduction in asset base in Year 1, 1.5% in Year 2 and .5% in Years 3-5 based on the average acquisition value of company/agency assets and an annual depreciation rate of 12.5%	\$2,349,750.00	\$937,500.00	\$703,125.00	\$234,375.00	\$234,375.00	\$234,375.00
	Reduced property insurance costs	Assumes organization will no longer pay property insurance costs on the 2% annual reduction in asset base in Year 1, 1.5% in Year 2 and .5% in Years 3-5 based on the average asset acquisition asset value and annual insurance rate cost of 2.0%	\$466,750.00	\$187,500.00	\$140,625.00	\$46,875.00	\$46,875.00	\$46,875.00
	Increase to cash from sale of excess idle equipment	Assumes organization will sell under utilized assets at a rate of 2% in Year 1, 1.5% in Year 2 and .5% in Years 3-5 with an average asset disposition selling price of \$250	\$625,000.00	\$250,000.00	\$187,500.00	\$62,500.00	\$62,500.00	\$62,500.00
	Reduction to in-house repair and calibration expenses	Assumes organization will no longer need to calibrate/maintain 10% of the reduced asset base at a rate of 2% in Year 1, 1.5% in Year 2 and .5% in Years 3-5 with an annual cost of \$1,500 per asset	\$375,000.00	\$150,000.00	\$112,500.00	\$37,500.00	\$37,500.00	\$37,500.00
	Reduction to outsourced repair and calibration expenses	Assumes organization will no longer need to outsource the calibration/maintenance of 15% of the reduced asset base at a rate of 2% in Year 1, 1.5% in Year 2 and .5% in Years 3-5 with an annual cost of \$2,500 per asset	\$937,500.00	\$375,000.00	\$281,250.00	\$93,750.00	\$93,750.00	\$93,750.00
	Reduced sales tax	Assumes organization will avoid a 1% sales tax on the acquisition of new company/agency assets based at a rate of 2% annual reduction in asset base in Year 1, 1.5% in Year 2 and .5% in Years 3-5 based on the average acquisition value of company/agency assets	\$1,312,500.00	\$525,000.00	\$393,750.00	\$131,250.00	\$131,250.00	\$131,250.00
	Reduced property/personal property tax	Assumes organization will avoid a 3.5% property tax on new company/agency assets based at a rate of 2% annual reduction in asset base in Year 1, 1.5% in Year 2 and .5% in Years 3-5 based on the average acquisition value of company/agency assets	\$666,250.00	\$267,500.00	\$198,875.00	\$66,875.00	\$66,875.00	\$66,875.00
	Reduced purchase order processing costs	Assumes organization will avoid a 1% purchase order processing cost on new company/agency assets based at a rate of 2% annual reduction in asset base in Year 1, 1.5% in Year 2 and .5% in Years 3-5 based on the average acquisition value of company/agency assets	\$187,500.00	\$75,000.00	\$56,250.00	\$18,750.00	\$18,750.00	\$18,750.00
	Reduced interest expense	Assumes organization will avoid an average 2.5% interest rate expense on new company/agency assets based at a rate of 2% annual reduction in asset base in Year 1, 1.5% in Year 2 and .5% in Years 3-5 based on the average acquisition value of company/agency assets	\$466,750.00	\$187,500.00	\$140,625.00	\$46,875.00	\$46,875.00	\$46,875.00
	Reduced inventory management expenses	Assumes organization will avoid an average 2.5% inventory management expense on new company/agency assets based at a rate of 2% annual reduction in asset base in Year 1, 1.5% in Year 2 and .5% in Years 3-5 based on the average acquisition value of company/agency assets	\$466,750.00	\$187,500.00	\$140,625.00	\$46,875.00	\$46,875.00	\$46,875.00
	Reduced square footage and cost requirements	Assumes organization will avoid an average .5% reduction in inventory storage expense on new company/agency assets based at a rate of 2% annual reduction in asset base in Year 1, 1.5% in Year 2 and .5% in Years 3-5 based on the average acquisition value of company/agency assets	\$93,750.00	\$37,500.00	\$28,125.00	\$9,375.00	\$9,375.00	\$9,375.00
	<b>Total</b>			<b>\$26,607,500.00</b>	<b>\$10,675,000.00</b>	<b>\$9,006,250.00</b>	<b>\$2,660,750.00</b>	<b>\$2,660,750.00</b>

### Asset Management System ROI Calculator

This Asset Management System ROI (Return on Investment) Calculator includes examples of potential elements of a Cost/Benefit Analysis. The chart above is an excerpt of the full version. To see the entire ROI chart and also to get a blank template for your own use, go to the NPMA website at: <http://www.npma.org/pages/memberdocs.htm>.

There are many ways to analyze the ROI for the acquisition of an asset management system but this example illustrates the expected benefits and costs in a well organized, easy to read format which would be appreciated by management when they review your business case.

you want is to select a vendor who may soon be going out of business leaving you with questions like, “Who do I call for support if I have questions?” “Who do I call for help with any system changes?” or “Will we ever receive any system enhancements or upgrades?”

### ***Implementation Approach/Timeline***

In this section you should provide a timeline or approximation for reaching milestone events in a tool such as Microsoft Project© where you could list all major tasks such as data mapping, conversion, software installation, user and system administrator training, etc... Each task would have the name of the person responsible for that item as well as an estimated start and completion date. This plan should also take into consideration contingencies such as you can't start the “Software Installation” task until the “Receive Hardware” and “IT Configures New Hardware in Data Center” tasks have been completed.

It is also important that the implementation plan has the full support of the management of all major stakeholders to ensure the appropriate resources will be available when needed. Managers should be briefed regularly on the process of your business case so they can shift resources where/when needed, as your project isn't their only concern.

### ***Recommendation***

In this critical section you need to outline your recommended solution and provide the main reasons why you are making this recommendation. It is critical that you also tie your recommendation back to the challenges and opportunities outlined in the Problem Definition and Desired Business Goal(s) section and demonstrate how this proposed solution will meet the intended goals and is consistent with the overall goals and objectives of the organization.

Your recommendation should also describe how you intend to measure the success of the project with periodic status meetings including all key stakeholders as well as a commitment that upon the deployment of the new asset management system, you agree to provide executive management with a brief project summary of the successes, challenges and unintended benefits. Doing so will illustrate you are not just looking for a quick fix, but rather you have the strategic best interests of the organization in mind.

### ***Appendices***

Any supporting evidence documentation should go into the Appendix. Remember your business case should tell a clear and concise story, so place any detailed documents (e.g. Asset Management ROI Calculator, vendor price quotations, etc...) in this section.

### **Conclusion**

There is no “one size fits all” business case, but I hope this article provides a listing of all of the critical elements and methodology that will facilitate your efforts in writing a business case for the acquisition of an asset management system. Tell your story in a clear and concise manner and most importantly, quantify the expected benefits and costs in a format similar to the Asset Management System ROI Calculator to help justify your recommendation. Solid teamwork and communication across key functional areas will be critical for this effort.

Although this outline does not specifically address the inevitable politics regarding securing support for your business case, a well organized document with clear, quantifiable benefits will in most cases trump the objections of any nay-sayers in the eyes of executive management. Management wants to see cost savings, risk reduction and projects with a quick return on investment so if you've done your homework, who will be willing to bet their career against your business case? Done well, you'll have people wanting to join you to be part of a successful project. During this process, management will have exposure to your talents and abilities to objectively look at the asset management team's challenges and/or opportunities to outline a plan consistent with the mission of the organization which delivers both quantifiable and “soft” benefits. ■

### **BIOGRAPHY**

**Brian Thompson, CPPM** is Vice President of Solutions, Strategic Markets at Sunflower Systems where his responsibilities include the sales and marketing of Sunflower Systems solutions to key strategic accounts, exploring new markets and enhancing general sales operations. Thompson is a respected executive with a distinguished 20-year career leading software sales and professional services operations for turnaround and S&P 500 organizations. Thompson currently serves as NPMA Western Region Vice President. He is a frequent contributing author to The Property Professional publication where in 2007 he earned an Award of Merit for Literary Excellence. He is also a frequent speaker at NPMA educational/regional events. Thompson earned a master's in Business Administration and a Bachelor of Science in Management from Pepperdine University and is a former faculty member of the UC Berkeley Haas School of Business.