

## **Inventory Management for ABC**

*January, 2011*

**Prepared For:**

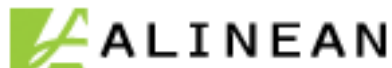
ABC

**Prepared By:**

Menno Takes

LRWA

*Third party model, methodology and data provided by:*



Disclaimer: NOTICE - THIS INFORMATION IS PROVIDED TO YOU AS A TOOL 'AS IS' WITH THE UNDERSTANDING THAT THERE ARE NO REPRESENTATIONS OR WARRANTIES OF ANY KIND EITHER EXPRESS OR IMPLIED. ALINEAN DISCLAIMS ALL WARRANTIES INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALINEAN DOES NOT WARRANT OR MAKE ANY REPRESENTATIONS REGARDING THE USE, VALIDITY, ACCURACY OR RELIABILITY OF THE TOOL OR THE RESULTS OF THE USE OF THE TOOL. IN NO EVENT SHALL ALINEAN BE LIABLE FOR ANY DAMAGES, INCLUDING THOSE ARISING AS A RESULT OF ALINEAN'S NEGLIGENCE. WHETHER THOSE DAMAGES ARE DIRECT, CONSEQUENTIAL, INCIDENTAL, OR SPECIAL, FLOWING FROM YOUR USE OF OR INABILITY TO USE THE TOOL OR INFORMATION PROVIDED HERewith OR RESULTS OF THE TOOL'S USE EVEN IF ALINEAN HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE ULTIMATE RESPONSIBILITY FOR ACHIEVING THE CALCULATED RESULTS REMAINS WITH YOU. THIS TOOL IS NOT FOR USE BY OR FOR INDIVIDUAL/CONSUMER PURPOSES.

## 1. Project Overview

This ROI Analysis was created specifically for ABC, with research and analysis completed in January,, 2011.

Automate supply chain management by deploying best practices such as implementing supplier scorecards, improving demand and production, inventory and procurement management, planning, forecasting and reporting, enhancing quality management, improving bill of materials management and routing, improving purchase order management, routing and approvals, enhancing order entry and processing, improving shipping and delivery management and logistics, automating order fulfillment processing, implementing product configuration verification, optimizing promotions management and reporting, improving accounts receivable management, and enabling on-line billing and payments.

The results in this report were created from the ABC's own profile and opportunity metrics (specifically provided by the team) and industry research metrics and financial calculations contained in the Alinean ROI Analyst™ software, an independent financial modeling tool and model developed by worldwide leading and independent analyst firm IDC (<http://www.idc.com>) and ROI consultancy Alinean, The IT Value Experts (<http://www.alinean.com>).

## 2. Executive Summary

A risk adjusted analysis of the proposed solution's impact was conducted and it was projected that implementing the proposed solutions resulted in 74.006.149€ of 3 year cumulative benefits. Of these projected benefits, 73.887.035€ are direct (hard) benefits and 119.114€ are indirect (soft) benefits.

Top cumulative benefits for the project include:

- Reduce Inventory (increase inventory turns) - 37.425.431€
- Improve Production Exception Handling - 10.462.766€
- Improve Net Fixed Asset Utilization / Avoidance - 7.762.078€
- Improve SCM Staff and Task Productivity - 5.064.575€
- Reduce Cost of Goods Sold - 4.344.463€
- Reduce Transportation Duties and Taxes and Increase Rebates and Incentives - 4.294.849€
- Reduce Inventory Scrap - 1.855.209€
- Improve Purchase Order, Invoice and Payment Processing - 1.105.474€
- Improve Strategic Sourcing - 1.068.055€
- Reduce Inventory Carry Cost - Increase Inventory Turns (reduce days in inventory) - 504.136€

These benefits can be grouped regarding business impact as:

- 73.887.035€ in business operating efficiency improvements
- 119.114€ in business strategic advantage benefits

The proposed project is expected to help the company meet the following goals and drive the following benefits:

- Reduce Inventory 39.280.640€
- Reduce Ordering, Production and Fulfillment Management Costs 20.207.552€
- Improve Net Fixed Asset Utilization 7.762.078€
- Reduce Supplier Management and Procurement Costs 6.132.630€
- Reduce Inventory Management Costs 504.136€
- Increase Customer Loyalty and Satisfaction 119.114€

The proposed project is expected to deliver the following benefits to specified stakeholders:

- VP Operations 67.369.043€
- CFO 4.351.206€
- VP Finance 1.105.474€
- Procurement Manager / Director 1.068.055€

## ROI Analyst™

- VP Sales and Marketing 112.372€

To implement the proposed project will require a 3 year cumulative investment of 10.147.499€ including:

- 800.000€ in initial expenses
- 4.481.200€ in capital expenditures
- 5.666.298€ in operating expenditures

Comparing the costs and benefits of the proposed project using discounted cash flow analysis and factoring in a risk-adjusted discount rate of 86,5%, the proposed business case predicts:

- Risk Adjusted Return on Investment (RA ROI) of 260%
- Return on Investment (ROI) of 629%
- Net Present Value (NPV) savings of 11.781.606€
- Internal Rate of Return (IRR) of 369%
- Payback period of 13.0 month(s)

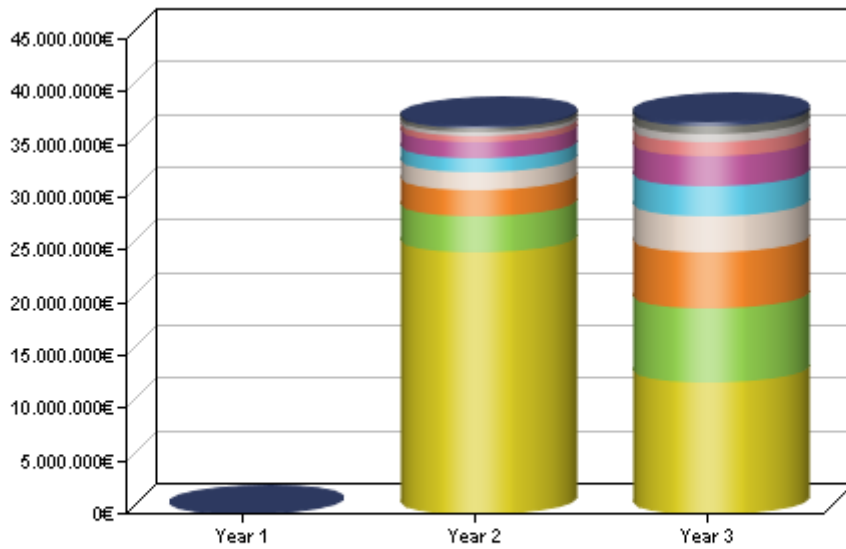
Note: The project has been risk-adjusted for an overall deployment schedule of 12 months, realized benefits to include 76,0% of direct benefits and 10,0% of indirect benefits and a deployment schedule (adoption curve) of 30,0%,60,0%, and 76,0% over each successive year of the analysis.

### 3. Benefit Summary

The proposed solution is expected to deliver 74.006.149€ over the 3 year analysis period, with 73.887.035€ in direct (hard) benefits, and 119.114€ in indirect (soft) benefits.

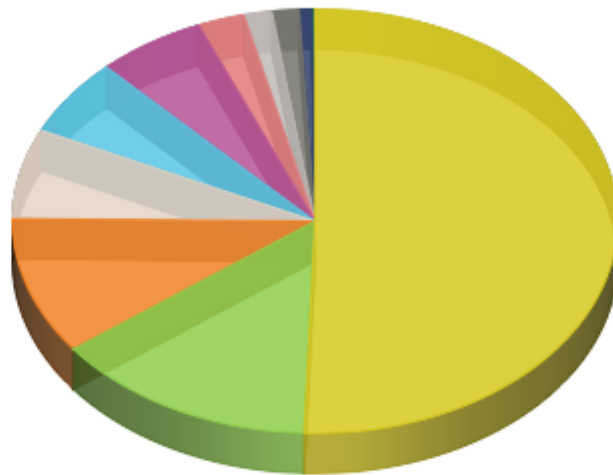
Benefits Summary	Year 1	Year 2	Year 3	Total
<b>Total Benefits</b>	<b>0€</b>	<b>36.807.820€</b>	<b>37.198.329€</b>	<b>74.006.149€</b>
<b>Business Operating Efficiency</b>				
Reduce Inventory (increase inventory turns)	0€	24.839.888€	12.585.543€	37.425.431€
Improve Production Exception Handling	0€	3.441.699€	7.021.067€	10.462.766€
Improve Net Fixed Asset Utilization / Avoidance	0€	2.503.896€	5.258.182€	7.762.078€
Improve SCM Staff and Task Productivity	0€	1.665.979€	3.398.596€	5.064.575€
Reduce Cost of Goods Sold	0€	1.429.100€	2.915.363€	4.344.463€
Reduce Transportation Duties and Taxes and Increase Rebates and Incentives	0€	1.412.779€	2.882.070€	4.294.849€
Reduce Inventory Scrap	0€	598.454€	1.256.754€	1.855.209€
Improve Purchase Order, Invoice and Payment Processing	0€	363.643€	741.831€	1.105.474€
Improve Strategic Sourcing	0€	351.334€	716.721€	1.068.055€
Reduce Inventory Carry Cost - Increase Inventory Turns (reduce days in inventory)	0€	162.624€	341.511€	504.136€
<b>Total Business Operating Efficiency</b>	<b>0€</b>	<b>36.769.396€</b>	<b>37.117.639€</b>	<b>73.887.035€</b>
<b>Business Strategic Advantage</b>				
Improve Customer Satisfaction and Loyalty (indirect)	0€	36.249€	76.123€	112.372€
Increase Customer Lifecycle Value (indirect)	0€	2.175€	4.567€	6.742€
Increase Customer Referral Rate (indirect)	0€	0€	0€	0€
<b>Total Business Strategic Advantage</b>	<b>0€</b>	<b>38.424€</b>	<b>80.690€</b>	<b>119.114€</b>
<b>Direct Benefits</b>	<b>0€</b>	<b>36.769.396€</b>	<b>37.117.639€</b>	<b>73.887.035€</b>
<b>Indirect Benefits</b>	<b>0€</b>	<b>38.424€</b>	<b>80.690€</b>	<b>119.114€</b>

Benefits



- Reduce Inventory (increase inventory turns)
- Improve Production Exception Handling
- Improve Net Fixed Asset Utilization / Avoidance
- Improve SCM Staff and Task Productivity
- Reduce Cost of Goods Sold
- Reduce Transportation Duties and Taxes and Increase Rebates and Incentives
- Reduce Inventory Scrap
- Improve Purchase Order, Invoice and Payment Processing
- Improve Strategic Sourcing
- Other

Top Benefits



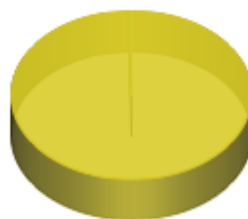
- Reduce Inventory (increase inventory turns) [50,6%]
- Improve Production Exception Handling [14,1%]
- Improve Net Fixed Asset Utilization / Avoidance [10,5%]
- Improve SCM Staff and Task Productivity [6,8%]
- Reduce Cost of Goods Sold [5,9%]
- Reduce Transportation Duties and Taxes and Increase Rebates and Incentives [5,8%]
- Reduce Inventory Scrap [2,5%]
- Improve Purchase Order, Invoice and Payment Processing [1,5%]
- Improve Strategic Sourcing [1,4%]
- Reduce Inventory Carry Cost - Increase Inventory Turns (reduce days in inventory) [0,7%]
- All other included benefits [0,2%]

Benefits By Category



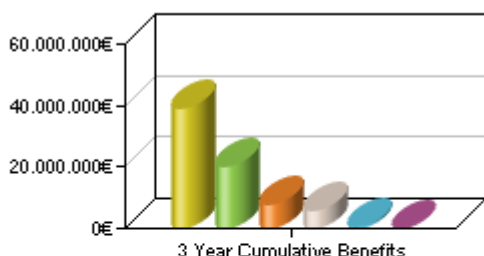
■ Business Operating Efficiency [99,8%]  
 ■ Business Strategic Advantage [0,2%]

Direct vs Indirect Benefits



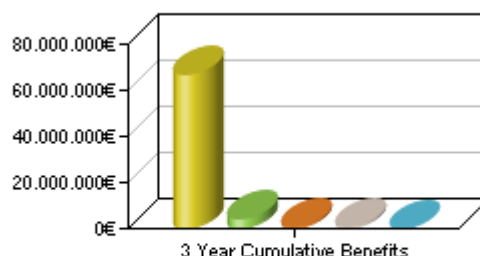
■ Direct [99,8%] ■ Indirect [0,2%]

Benefits By Goal



● Reduce Inventory  
 ● Reduce Ordering, Production and Fulfillment Management Costs  
 ● Improve Net Fixed Asset Utilization  
 ● Reduce Supplier Management and Procurement Costs  
 ● Reduce Inventory Management Costs  
 ● Increase Customer Loyalty and Satisfaction

Benefits By Stakeholder



● WP Operations ● CFO ● WP Finance  
 ● Procurement Manager / Director  
 ● WP Sales and Marketing

### 4. Investment Summary

To implement the proposed project will require a 3 year cumulative investment of 10.147.499€ including:

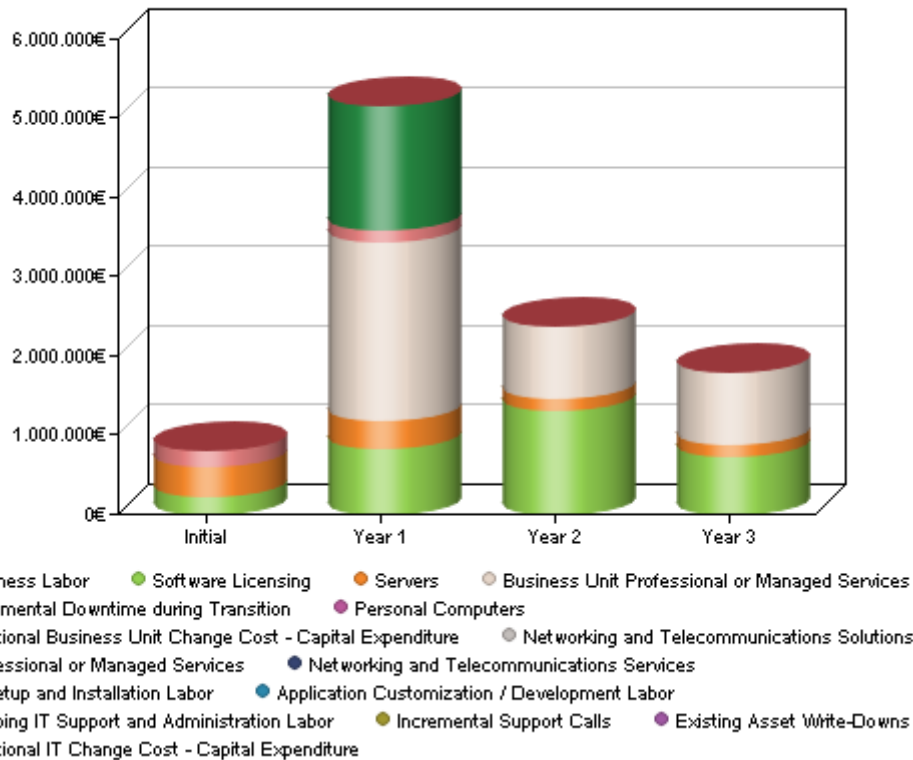
- 800.000€ in initial expenses
- 4.481.200€ in capital expenditures
- 5.666.298€ in operating expenditures

Investment Summary	Initial	Year 1	Year 2	Year 3	Total
<b>Total Investment</b>	<b>800.000€</b>	<b>5.175.300€</b>	<b>2.377.300€</b>	<b>1.794.899€</b>	<b>10.147.499€</b>
<b>Capital Investment</b>					
Software Licensing (IT)	240.000€	840.000€	1.327.200€	744.800€	3.152.000€
Servers (IT)	360.000€	360.000€	129.600€	129.600€	979.200€
Additional Business Unit Change Cost - Capital Expenditure (BU)	200.000€	150.000€	0€	0€	350.000€
Personal Computers (IT)	0€	0€	0€	0€	0€
Networking and Telecommunications Solutions (IT)	0€	0€	0€	0€	0€
Existing Asset Write-Downs (IT)	0€	0€	0€	0€	0€
Additional IT Change Cost - Capital Expenditure (IT)	0€	0€	0€	0€	0€
<b>Total Capital Investment</b>	<b>800.000€</b>	<b>1.350.000€</b>	<b>1.456.801€</b>	<b>874.400€</b>	<b>4.481.200€</b>
<b>Operating Investment</b>					
Business Unit Professional or Managed Services (BU)	0€	2.244.900€	920.499€	920.499€	4.085.898€
IT Setup and Installation Labor (IT)	0€	1.580.400€	0€	0€	1.580.400€
Incremental Downtime during Transition (BU)	0€	0€	0€	0€	0€
Ongoing IT Support and Administration Labor (IT)	0€	0€	0€	0€	0€

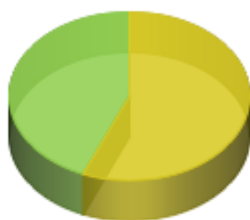
## ROI Analyst™

Incremental Support Calls (IT)	0€	0€	0€	0€	0€
Networking and Telecommunications Services (IT)	0€	0€	0€	0€	0€
Application Customization / Development Labor (IT)	0€	0€	0€	0€	0€
Professional or Managed Services (IT)	0€	0€	0€	0€	0€
Business Labor (BU)	0€	0€	0€	0€	0€
<b>Total Operating Investment</b>	<b>0€</b>	<b>3.825.300€</b>	<b>920.499€</b>	<b>920.499€</b>	<b>5.666.298€</b>

### Investment



### Investment By Category



IT Costs [56,3%]    BU Costs [43,7%]

### Investment by Expense Type



Capital Expenditure [44,2%]  
Operating Expenditure [55,8%]

## 5. ROI Analysis

Analyzing the opportunity, and applying the proposed solution, the cash flow and key financial metrics were calculated, resulting in a:

- Risk Adjusted Return on Investment (RA ROI) of 260%
- Return on Investment (ROI) of 629%
- Net Present Value (NPV) savings of 11.781.606€
- Internal Rate of Return (IRR) of 369%
- Payback period of 13.0 month(s)

# ROI Analyst™

ROI Analysis (Probable Case)	Initial	Year 1	Year 2	Year 3
Benefits	0€	0€	36.807.820€	37.198.329€
Cumulative Benefits		0€	36.807.820€	74.006.149€
Investment	800.000€	5.175.300€	2.377.300€	1.794.899€
Cumulative Investment	800.000€	5.975.300€	8.352.600€	10.147.499€
Cash Flow	(800.000€)	(5.175.300€)	34.430.520€	35.403.430€
Cumulative Cash Flow	(800.000€)	(5.975.300€)	28.455.221€	63.858.651€
ROI	629%			
Risk Adjusted ROI	260%			
NPV Savings	11.781.606€			
IRR	369%			
Payback period (including deployment period)	13 month(s)			
Risk Adjusted Discount Rate	86,5%			

