

How to Build ERM with Business Intelligence

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INTRODUCTION

Risky decisions are a fact-of-life in business. Traditionally, credit risks have been assessed in the key ratios of a company's financial statements. The new Enterprise Risk Management (ERM) standard that is being applied to management is whether a company both recognizes and prioritizes the risk events that could impact business performance --- and recovers as much value as possible when problems occur.

The signs of the growing ERM importance are everywhere

Investor class action law suits are charging corporate management with failure to protect shareholder value by not making diligent use of risk information to avoid losses. The Sub-Prime credit crisis has cost billions in marked down market value and prompted the U.S. Federal Reserve to issue a Blue Print for unified regulation of the Banking, Insurance and Securities industries.

Credit rating agencies, such as Standard and Poor's, that cover banks, insurance companies and non-financial industries are changing evaluation criteria to require **documented evidence** that at some level, Enterprise Risk Management Programs are operational. Indeed if a company does not have an ERM Program --- it cannot achieve an Above Average credit rating.

Directors and Officers have no more wiggle room. They must perform very strong oversight or potentially face not only major financial consequences, but also suffer severe reputation loss, and conceivably criminal prosecution, as well.

Achieving such oversight can be largely a matter of aligning information that already exists within corporate systems in proper ways. The damages of not organizing and documenting ERM information properly include:

- Lower Corporate Valuation
- Higher Cost of Capital
- Higher Balance Sheet Reserves
- Higher Insurance Premiums and Claims
- Higher Regulatory Fines and Losses
- Higher Litigation Activity

Providing Directors and Officers deeper ERM insight into this information, so they can make informed decisions, is a function of properly structuring core data and allowing greater visibility into decision making responsibilities. This is the function of Business Intelligence (BI) information.

What follows is a review of how Business Intelligence can be applied to reduce on-going ERM coordination costs and increase the bottom-line value that a well designed ERM Program delivers. This will satisfy rating agency criteria for performance management excellence and lead to a higher credit score.

RISK MANAGEMENT CULTURE AND GOVERNANCE

Corporations must demonstrate there is an effective risk management culture. A positive evaluation of a company’s governance starts with showing functional alignment across the Entity Level Controls that set senior management’s “tone at the top” of the business. Risk Management Culture assertions are ultimately tested by confirming that the key executives in Finance, Audit, Legal, Compliance, HR, I/T and other business areas are personally responsible for ERM goals and ERM Program assessment results. For example, can senior management document test results that do the following?

RISK MANAGEMENT CULTURE EXAMPLES INCLUDED IN ERM EVALUATION

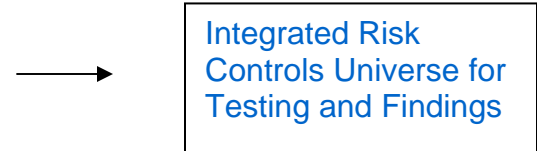
Entity Level Controls Activities	Senior Management engages all Functions
Communication of Policy is distributed to employees and external stakeholders	X
Organization charts and management authority delegation are documented	X
Performance Monitoring responsibilities for management’s Key Performance Indicator (KPI) Scorecards are assigned to specific roles	X
Performance Reviews for non Executive Employees are conducted annually	X

CONSOLIDATING RISK CONTROLS FRAMEWORKS WITH BUSINESS INTELLIGENCE

Since BI is built by structuring critical information into a unified database for enterprise use, Senior Management knows that all employees are committed to sharing a “single version of corporate truth” when reporting on the status of risk metrics. BI is a “multi-dimensional” technology that slices risk metrics from different functional ownership perspectives and combines them in an integrated information universe. Personnel view their unique slices of the consolidated data, specifically filtered to their role responsibilities for planning and control.

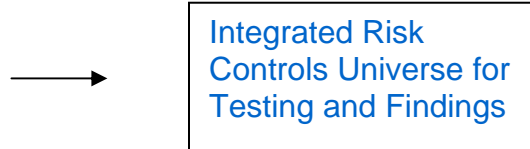
BI technology enables senior Functional Leaders to verify that their key monitoring issues are part of an integrated Enterprise Risk Management program

ERM Status Review Lists	Functional Org Responsibility
Assertions	SOX / Audit
GL Accounts	Finance
Risks	Risk Management
Insurance (Tags)	Risk Management
Control Objectives	Internal Audit
Policies	Legal
Regulations	Compliance
Org Positions	Human Resources
Systems Applications	I/T
Documents	I/T



A Business Intelligence database eliminates the accuracy issues that occur when spreadsheets are used as the primary way to store information. With spreadsheets, the replication of information and the issues of version control make it nearly impossible to reconcile key metrics across functional silos. Only by taking a BI approach can the net result mean integrating multiple Frameworks (such as the ones below) into a unified Risk Controls Universe that reduces redundancy and leads to consistent analysis.

Different Corporate Risk/Controls Frameworks
SAS 109 – Risk Evaluation
SAS 70 – 3 rd Party Services Controls
Sarbanes Oxley (SOX)
Internal Audit
I/T Governance Audits
Reg Compliance Audits
ISO (3100) Risk Mgt
COSO ERM Activities
AS/NZ (4360) Risk Mgt



Using Business Intelligence to show Emerging Risk Preparation

Consolidating frameworks into a single BI repository does not need to be as overwhelming as it may seem because all risk frameworks are constructed from the same principles and incorporate the same basic structure. When this is done, there is a multi-dimensional analysis in place of risk issues and corresponding controls.

General Ledger Account Risk Assessment

ERM alignment starts with a Top-Down financial risk assessment. Risk management ultimately must be tied to financial reporting. Identify specific General Ledger Accounts that have the potential for:

- > Material Weaknesses
- > Misstatements
- > Potential Losses

This is achieved through a risk assessment of all GL accounts using factors recommended by the SEC in Sarbanes-Oxley AS-5 guidance. When companies can use their monitoring systems to filter General Ledger Reports on High Risk GL Accounts --- and relate them to Organizational Responsibility, then the financial foundations for Enterprise Risk Management accountability are in place.

- > Account Misstatement Risk (**AMR**)
- > Complexity of Accounting Principles (**CoAP**)
- > Extend of Adjusting / Closing Entries (**EoA/CE**)
- > Error or Omission Risk (**EoOR**)
- > Possibility of Contingency (**PoC**)
- > Intentional Misstatement Risk (**IMR**)
- > Related Party Content (**RPC**)
- > Size and Contingency (**SaC**)

Assets	Code / #number	Value / Balance	%	Override	Overall Risk	AMR	CoAP	EoA/CE	EoOR	IMR	PoC	RPC	SaC	
Accounts Receivable			-		3	L	L	L	L	H	H	M	L	M
Accumulated Amortization			-		1	L	M	M	L	L	L	L	L	M
Accumulated Depreciation			-		1	L	M	L	L	L	L	L	M	M
Allowance for Doubtful Accounts/Discounts/Credit Memos			-		1	L	L	M	M	M	L	L	L	M
Cash			-		2	H	L	L	M	M	L	L	M	M
Construction in Progress			-		2	L	L	M	M	M	L	L	M	M
Deferred Income Tax Assets			-		3	L	H	H	H	M	L	L	L	M
Intangibles			-		1	L	H	L	M	L	L	L	L	M
Inventories			-		3	M	M	L	M	M	M	M	M	M
Inventory Reserves			-		2	L	M	M	M	M	L	L	L	M
Investments			-		1	M	L	L	L	L	L	L	L	M
Prepaid Expenses			-		1	L	L	M	M	L	L	L	L	M
Property, Plant, & Equipment			-		2	M	L	L	M	L	M	L	L	M
Liabilities	Code / #number	Value / Balance	%	Override	Overall Risk	AMR	CoAP	EoA/CE	EoOR	IMR	PoC	RPC	SaC	
Accounts Payable			-		1	L	L	L	L	L	L	M	M	M
Accrued Expenses			-		2	L	L	M	M	M	L	L	M	M
Accrued Interest			-		1	L	L	M	L	L	L	L	L	M
Deferred Income Tax Liabilities			-		3	L	H	H	M	H	L	L	L	M

High Account Misstatement Risk

GL Account Risk Assessment Created in Aline™

Risk Impact Analysis

Top-down Risk Evaluation encompasses reviewing **all Types of risk events** that can affect current or future financial losses. Risk description documentation should highlight the quantitative metrics that are used to monitor the frequency and severity of risk events. For example, the Top-down Risk Evaluation process can use Insurance Underwriting factors so risk assessment can be linked to a review of where insurance coverage is in place for primary and excess risk protection. BI points this analysis to key points in process workflows where loss control activities that limit net losses can be verified.

Type	Risk	Overall Risk	Potential Max Loss	Average Frequency	Average Severity	Contingency Timing	Net Recovery
Business Disruption and System Failure	A disaster or contingency occurs that disrupts business operations	H	H	L	L	L	M
Business Practices	Erroneous Balance Sheet Reporting	M	H	L	L	L	M
Business Practices	Credit Risk affecting banking relationship decisions	M	M	L	L	M	M
Business Practices	Credit risks resulting from insufficient collateralization of debt	M	H	L	M	L	M

Risk Impact Assessment Created in Aline™

When the risk analysis is aligned with potential impact on specific General Ledger Accounts, reports can be prepared for senior management and the Board of Directors that show the full scope of how current and emerging risk analysis affects short-term and long-term financial plan decisions.

The Chief Financial Officer can use BI to present a risk analysis drill-down on Balance Sheet and Income Statement Classes to show the breadth and depth of financial evaluation across the major functions in organization.

Account Type	Account	Risk	Monitored By
Assets	A/R Pending Tax Refunds	Asset values are below business plan expectations	Senior Credit Officer
		Erroneous Balance Sheet Reporting	Senior Credit Officer
	Accounts Receivable	Asset values are below business plan expectations	Senior Credit Officer
		Erroneous Balance Sheet Reporting	Senior Credit Officer
Bonds Borrowed Overnight		Employee Turnover does not have adequate staffing replacements for business continuity	Chief Financial Officer
		Employees do not have adequate knowledge and experience to fulfill their responsibilities	Chief Financial Officer
		Erroneous Balance Sheet Reporting	Chief Financial Officer
		Fraudulent payments are submitted for processing	Funds Transfer Manager
			Chief Financial Officer
Cash Due from Banks		Transaction Volumes exceed risk monitoring tolerances	Funds Transfer Manager
		Employee Turnover does not have adequate staffing replacements for business continuity	Chief Financial Officer
		Employees do not have adequate knowledge and experience to fulfill their responsibilities	Chief Financial Officer
		Erroneous Balance Sheet Reporting	Chief Financial Officer
		Fraudulent payments are submitted for processing	Funds Transfer Manager
Cash in Transit		Transaction Volumes exceed risk monitoring tolerances	Funds Transfer Manager
		Employee Turnover does not have adequate staffing replacements for business continuity	Chief Financial Officer
		Employees do not have adequate knowledge and experience to fulfill their responsibilities	Chief Financial Officer
		Erroneous Balance Sheet Reporting	Chief Financial Officer
		Fraudulent payments are submitted for processing	Funds Transfer Manager
	Chief Financial Officer		
		Transaction Volumes exceed risk monitoring tolerances	Funds Transfer Manager

Financial Statement Account Risk Analysis Created in Aline™

The staff overseeing risk control works collaboratively with personnel in Finance when making insurance coverage decisions to show that Potential Maximum Loss (PML) estimates, Premium limits, Reserves and Net Loss postings is managed professionally. Contingency plan readiness evaluation is backed by process documentation tests of 1st stage and 2nd stage recovery timing.

Cycle	(All)				
Control Point	Yes				
Average of Score					
Risk	Activity Tag	Process	Activity	Performed By	Document
A disaster or contingency occurs that disrupts business operations	Business Interruption Insurance	Business Continuity Plan Testing	Certifies Contingency Plan Readiness	Chief Risk Officer	Contingency Plan Report Risk Events Analysis Report

Contingency Controls Activity Documentation Verified in Aline™

Workflow Process Controls Review

Business Intelligence shows where Risk Event monitoring is connected to Workflow Process controls. Top-down Assessment should point to High and Medium risks for detailed review of where internal controls are deployed to avoid or lessen potential losses. The assessment can help eliminate controls for low risk areas or at least allow for tests that prove internal controls are working. On the flip side, high risk areas can benefit from automated controls that not only require fewer tests but also are considered stronger for audit requirements

Manual Controls are dependent on the people that perform them. HR must show active monitoring of staffing competencies and turnover levels for manual key controls. Staffing Census analysis reports as part of succession planning controls are particularly important to show business continuity in high risk work-flow areas. Management can also use a risk metric like Transaction Volume Change percentage to monitor staffing levels that ensure workload peaks can be handled when volume rises above planned capacity levels.

Workflow Process Check Points	Status
Workflow Processes that affect controls monitoring activities are entered into the database	
High and Medium Risk Processes have been evaluated for the Companies that affect financial reporting integrity sign-off	
Process Activities documentation identifies Control Types, Control Methods and Control Frequency for Control Points that affect General Ledger account balance tests	
Control Tests are defined for centrally performed Key Controls that can reduce total testing requirements	
Controls management activities are documented for Companies that perform local controls	

Organization Controls Assessment

An organization Controls Assessment is designed to generate feedback from the people who are performing and monitoring risk controls. Finding out what they do and comparing it to what you think they do is critical to getting a true picture of business process. Controls effectiveness is better measured on a five point maturity curve scale rather a binary scale in order to prioritize what needs to be done and to monitor progress. This can be part of an on-going Controls Design Gap assessment to optimize controls improvement investments.

Activity	Documentation	Assessment	Assignments
Status: Started			
Design Effectiveness: <input type="radio"/> Level 1 <input type="radio"/> Level 2 <input type="radio"/> Level 3 <input checked="" type="radio"/> Level 4 <input type="radio"/> Level 5			

Controls Activities Assessment Made in Aline™

Risk Control Position Reports are used by Functional Leaders to test Organizational Delegation, Job Description accuracy and Segregation of Duties. Employee input to optimize risk control methods establishes targets for workflow process improvements. Position Matrix analysis, shown below, answers Board of Directors' questions about whether the right roles are engaged for optimal performance (P) and risk control monitoring (M) responsibilities.

Aline Position Matrix					Fiscal Manager	Fiscal Officer	VP of Operations
Company	Cycle	Process	Activity	Key Control			
Aline Inc.	Human Resources	HR - Change of Status / Master File	HR.CS.01 Duties are properly segregated.	Yes	M		
Aline Inc.	Human Resources	HR - Change of Status / Master File	HR.CS.02 The payroll system and related files are properly restricted.	Yes		M	P
Aline Inc.	Human Resources	HR - Change of Status / Master File	HR.CS.05 The Employee Master File Change Report is reviewed by appropriate personnel.	Yes		M	P

Organization Responsibilities Matrix Created in Aline™

Organization Controls Assessment Continued

Job-based Review of role responsibilities is used to communicate and confirm employee sign-off on the relationship of Performance Management goals to corresponding risk control activities. This documentation shows alignment of risk management analysis with HR performance review practices and position evaluation procedures. It is a key element in securing Board Approval for compensation programs that integrate risk factors with rewards.

Organization Controls Check Points	Status
Controls program management review activities are entered for the Companies that affect financial reporting integrity sign-offs	
Perform By and Monitor By methods and frequencies have been evaluated for the Positions that sign-off on financial reporting integrity from different locations	
Process Activities documentation identifies Control Types, Control Methods and Control Frequency for the employees who are performing the controls	
Functional leaders confirm that their Position Controls Profiles documentation matches the risk monitoring activities and responsibilities performed in their organization’s job descriptions	
Employees are assigned to monitor and report on changes in their Key Controls	

Automated Controls Review

The Automated Controls Review is a key checkpoint for evaluating I/T governance practices and technology Return on Investment (**ROI**). The clarity of Automated Controls Review documentation directly affects the assessment rating of preventive controls and risk monitoring systems' effectiveness.

Business Intelligence analysis reports are used to evaluate the costs and benefits of specific I/T applications from end-to-end across business workflow processes. BI enables companies to review how well **System Application Controls** are aligned for:

- > System Access
- > Data Security Administration
- > Application Testing
- > System Problems Events
- > Recovery Practices
- > I/T Change Management

Organization Controls assessment scores should highlight how well system applications prevent or detect measurable risks. Enterprise risk management analysis quantifies the cost-benefit impact and emerging risk issues that affect I/T development plans.

I/T management's inventory of the key business reports that support internal controls documentation shows where information is used strategically for Continuous Controls Monitoring. SOX AS-5 guidance allows companies to anchor Controls Tests with "benchmarks" that show continuity in information design, reporting accuracy and system performance timeliness. The use of I/T Best Practices in audit tests can lower compliance costs significantly and strengthen external relationships.

Automated Controls Check Points	Status
The System Application source has been identified for all Automated Controls	
The report names used for General Ledger Control Point Documentation and Key Controls testing are aligned with I/T inventory review points	

Policy and Regulatory Standards Review

Risk Controls documentation information is the foundation that Business Intelligence uses to align regulatory standards and corporate policies with regulatory audit requirements. The re-usability of Key Controls Testing, Assessment and Remediation data helps compliance directors and legal staff work with regulators to streamline audit scheduling and information fulfillment requests.

Regulation and Policy Inventory Lists are the central point for documenting who is responsible for monitoring changes in Regulations and Policies. These activities show how Regulatory Standards are mapped to control points where professional staff make risk assessments and financial impact evaluations.

Regulations	Policies	Risks	Audit Area	Process	Activity
1) Bank Secrecy Act 2) Department of the Treasury - OFAC - SDN List 3) USA Patriot Act of 2001	Company AML/AT Policy	AM.SA.01 Illicit activity is not timely identified and appropriately reported	Aline Switzerland: Anti-Money Laundering	Activity Monitoring/Suspicious Activity Reporting	AM.SA.03 Unresolved monitoring exceptions are reported on the Treasury Department's SAR.
1) Bank Secrecy Act 2) USA Patriot Act of 2001	Company AML/AT Policy	AM.SA.01 Illicit activity is not timely identified and appropriately reported	Aline Switzerland: Anti-Money Laundering	Activity Monitoring/Suspicious Activity Reporting	AM.SA.02 Transactions that meet certain pre-established criteria are included in a periodic exception report, which is review...
1) Department of the Treasury - OFAC - SDN List 2) USA Patriot Act of 2001	Company AML/AT Policy	AM.RA.01 The organization inappropriately chooses to engage in transactions with individuals/businesses which have been invol...	Aline Switzerland: Anti-Money Laundering	Customer Identification/Verification Program (CIP)	AM.CI.B The organization submits identifying data to the Office of Foreign Assets Control (OFAC) prior to engaging in transac...
1) Department of the Treasury - OFAC - SDN List 2) USA Patriot Act of 2001	Company AML/AT Policy	AM.RA.01 The organization inappropriately chooses to engage in transactions with individuals/businesses which have been invol...	Aline Switzerland: Anti-Money Laundering	Customer Identification/Verification Program (CIP)	AM.CI.C The organization periodically re-verifies their customer data with the Office of Foreign Assets Control (OFAC) to ens...
1) NASD Rule 3011 2) USA Patriot Act of 2001	Company AML/AT Policy	1) AM.CI.01 The Customer Identification Policy (CIP) is not in writing 2) AM.PO.01 The Anti-Money Laundering Policy is not written	Aline Switzerland: Anti-Money Laundering	Policy Adoption	AM.PA.A The organization has adopted a written Anti-Money Laundering Policy, which has been approved in writing by a member
USA Patriot Act of 2001	Company AML/AT Policy	AM.RA.01 The organization inappropriately chooses to engage in transactions with individuals/businesses which have been invol...	Aline Switzerland: Anti-Money Laundering	Risk Assessment	AM.RA.A The organization engages in a formal risk assessment process annually, which considers both customer risk (geographic...
USA Patriot Act of 2001	Company AML/AT Policy	AM.RA.01 The organization inappropriately chooses to engage in transactions with individuals/businesses which have been invol...	Aline Switzerland: Anti-Money Laundering	Customer Identification/Verification Program (CIP)	AM.CI.A The organization maintains a process to ensure the identity of the individual/business with whom they are dealing by ...

AML Audit Report Example Created in Aline™

Legal and Regulatory Check Points	Status
Policy directives are documented and mapped to controls activities that are subject to regulatory standards review	
Regulators and Regulation Names are identified for all Controls Activities that are subject to regulatory audits	

Management Monitoring Systems

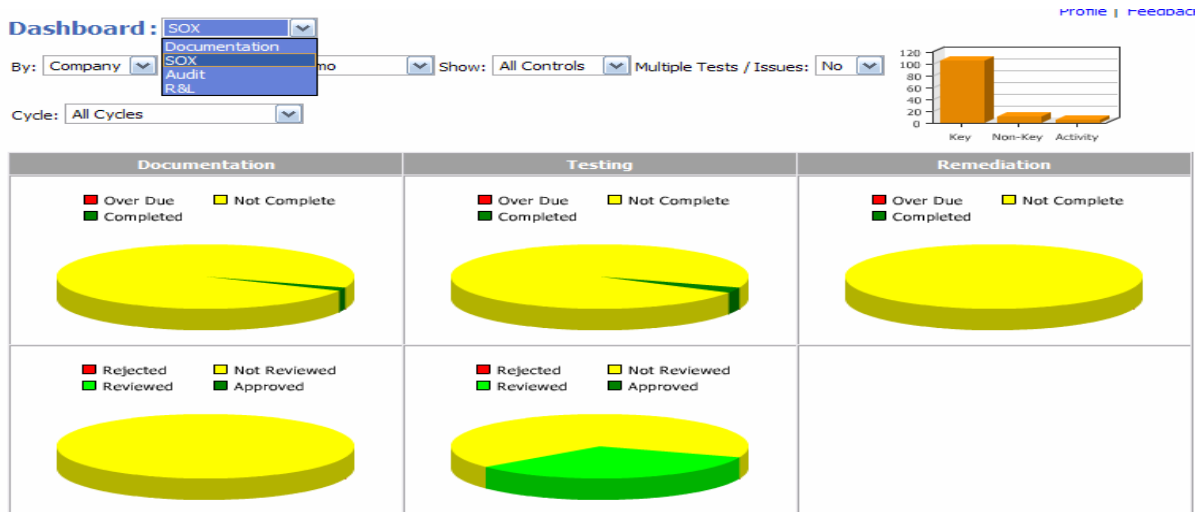
Management's active use of Monitoring Systems is the ultimate test for assessing whether risk information is cycling effective planning and control decisions to the correct levels of the organization. Performance reports should clearly identify variances from business plan goals and control standards. Management performance presentations and Board Minutes should show there is a history of timely reporting of risks and analysis of potential fines or losses.

When Key Performance Indicators (KPI's) are embedded in Management Dashboards there is direct evidence that thresholds are being applied to identify warning limits for **yellow** and **red** performance risk conditions.

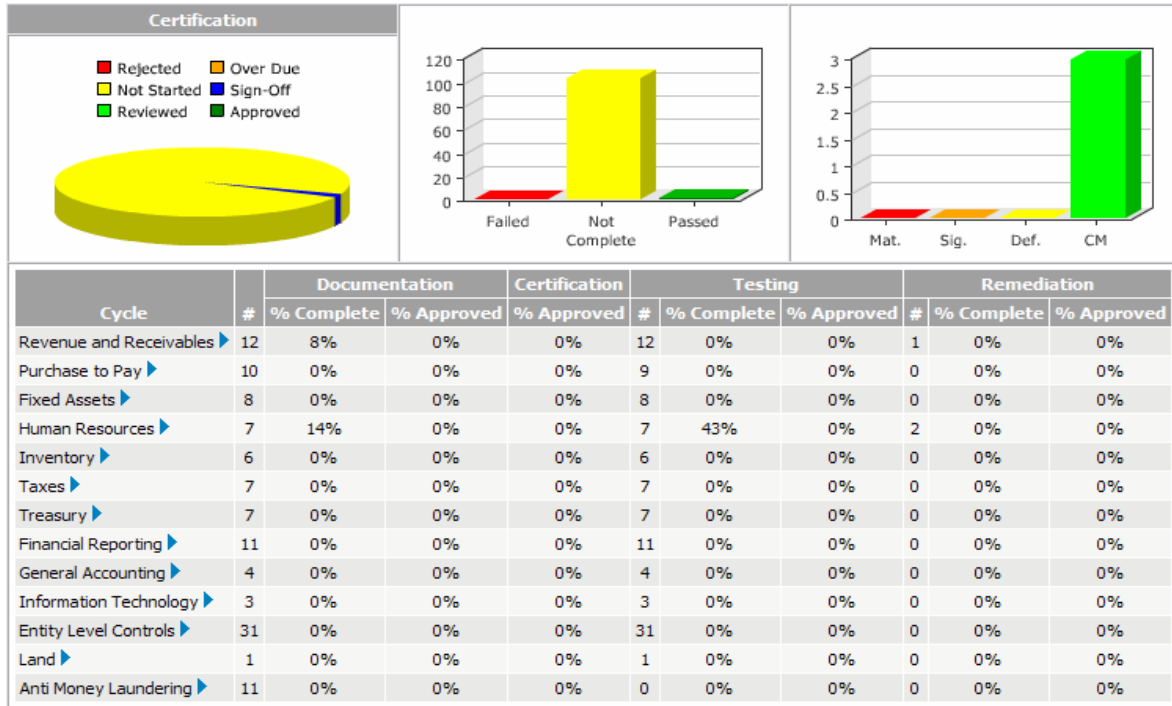
The use of Balanced Scorecards is a sign that management has layered its strategic planning indicators into a hierarchy for drilling-down from financial reporting to operational analysis. These inter-connected monitoring layers will encompass:

- >Financial Performance
- >Customer Performance
- >Internal Performance
- >Resource Performance
- >Risk Controls Performance

A Risk Controls Performance Dashboard should show there are connections to Program Management systems for planning and controlling risk management assignment responsibilities.



Controls Management Dashboard Report Created in Aline™



Controls Status Report Created in Aline™

Management Monitoring Check Points	Status
The reports for Management’s Performance Monitoring activities documentation are identifying variances from business plan goals and controls standards	
The frequency and severity of risk events is analyzed in management’s performance reporting process and Board notification procedures	
Senior management uses Risk Management Dashboards for monitoring Compliance results and Regulatory audits	

RISK MANAGEMENT ROI ANALYSIS

A financial impact analysis of Risk Management Programs is a Board of Directors agenda item to fulfill Directors and Officers oversight requirements. This presentation requires inputs and participation from the senior management functional leaders who set the tone at the top of the business

The parameters of Risk Management ROI Review will include alignment of costs and results for all ERM Program goals

Participants	Staff Resources	External Services	Loss Exposure	Reserves	Net Results
	Equivalent F/T Staff #	\$	\$	\$	
HR Director					Org Staffing Plans #; Performance Reviews #; Grievances #
SOX Consultant					Certifications #
Internal Auditor					Open Audit Issues #
External Auditor					Audit Assertions #
Compliance Director					Regulatory Audits Passed # - Failed #
General Counsel					Policies in-force #; Legal Transactions #
Outside Counsel					Cases settled #
Chief Information Officer					Systems Applications under control #
Chief Risk Officer					Vendor Reviews #; Claims settled # - \$; Salvage, Rehab, Workout recovery \$
Treasurer					Bank Transactions #; Investment gain / loss \$
CFO					Asset – Liability gain / loss \$
CEO					Equity gain / loss \$

CONCLUSION

All of the Risk Management assessments, reports and analysis needed for ERM review are built in a straightforward way from information you already have. What's required is aligning this information into an existing Business Intelligence structure.

The BI result is a single version of the truth that highlights cost-effective management of compliance. When each piece of information is assigned to its proper place in a Consolidated Framework, the construction of an ERM System, which was expected to be a highly complex endeavor, is reduced to a much simpler proposition through the use of business intelligence.

About Business Intelligence International

BI International is a global expert in providing the frameworks, structures and analytics that allow businesses to properly manage Risk and Performance:

- Government Risk & Compliance (GRC)
- Sarbanes-Oxley (SOX) 404 & 302 Compliance
- Internal Audit
- IT Governance
- Regulatory & Legal Compliance
- Enterprise Risk Management (ERM)
- Corporate Performance Management (CPM)

History of Thought Leadership

For over ten years, BI International has led the development of key business solutions for national and international leaders, both large and small across many industries. More recently, it has used its "expert to the experts" know-how to create Aline™. The Aline™ Platform is made up of an affordable set of easy-to-learn and easy-to-use tools that untangle the complexities of a business and organize critical information to a point of clarity, flagging key issues and driving successful decision making.

Measured in Clients

BI International has influenced over 40,000 clients worldwide through their thought leadership and with an increasing product line, those numbers grow every day.

Our clients, over 70 in total, have experienced overwhelming satisfaction with the flexibility, power, and client support that our product offers.

About The Authors

Dr. Richard Connelly

In addition to his leadership role at BII, Connelly focuses on driving high-value advisory services for the design and development of risk and performance management business intelligence systems. He helps guide the strategic application of business intelligence by extracting key risk analysis information and channeling key controls information to the desktops of responsible managers.

Connelly's career includes over 25 years of experience in planning and organizing business operations. Prior to co-founding BI International, he was a Senior Vice President of the Hay Group, and was responsible for leading the firm's strategy implementation consulting practice in the financial services industry sector. This included merger and acquisition implementation for banks, thrift institutions, and insurance companies in the U.S. and abroad.

Before the Hay Group, Connelly served at CIGNA/INA. There, he was INA Corporate Director for Organization Planning/Management Development and Vice President of Planning for CIGNA's Wholesale Insurance Group. Connelly was responsible for wholesale insurance business strategic planning, which included streamlining special risk, excess and surplus, and group insurance relationships with major global and national corporate relationships.

Prior to that, he served as Group Executive for Human Resources in the Operations/Data Processing Division of Chase Manhattan Bank. His responsibilities included planning and implementing organization change to accommodate the introduction of new services and new computer systems that re-defined the conduct of commercial banking.

Connelly is also the principal author of "The Multidimensional Manager: 24 Ways to Impact Your Bottom Line in 90 Days" and "The Multidimensional Organization"

Richard Binswanger

Richard Binswanger, Senior Vice President of Business Development for BI International currently drives the company's consulting and partner strategy. He has worked extensively with clients to help them reach compliance and is the author of numerous articles and whitepapers on SOX Best Practices.

With nearly 30 years experience in the education, sales and marketing, Binswanger previously served as CIO for Binswanger Company, a \$55 million real estate management company with \$2 billion in transaction activity annually. There, he designed and implemented a \$3 million CRM system for the International Real Estate division with 160 offices worldwide. He also developed and implemented the company's Web marketing strategy.

Before moving to real estate and sales, Binswanger had a 23-year education career at various learning institutions in Pennsylvania. As President of The Learning Greenhouse, a consulting company for integrating technology into the classroom, Binswanger won a major state grant to use the Web to help children with learning disabilities. He also held teaching positions at Woodlynde School, Agnes Irwin School, and Germantown Academy.

He serves on the Board of Directors of The United Way of Southeastern Pennsylvania, is an officer of the board of the National Foundation for Celiac Awareness and is founder of the Creative Greenhouse, a non-profit organization dedicated to support of creative thinking.