Project Lifecycle
Health Assessments

Anthony Mattucci, CEO, Milano, Inc.

What is a "Healthy" Project?

- Business case objectives are realistic, relevant and performance results indicate benefits will be realized.

- No negative impact to enterprise portfolio / program.

- Demonstrates that it will deliver within acceptable limits for scope, schedule, budget, specification, and level / grade of product quality.

- Sponsors and stakeholders are engaged, in agreement with objectives and satisfied with results.

What is a "Healthy" Project?

- Project teams are skilled, motivated, roles are understood, needs are addressed and workloads are manageable.

- Issues / risk events are anticipated, communicated, and managed.

- Vendor / contractor compliance and satisfaction levels are acceptable.

- Legal and regulatory requirements are met.

- Expectations are continuously monitored and managed.

Why Conduct Assessments?

Project failure and cost overrun statistics vary, but the message is clear:

- Healthy projects are not common…51% of IT projects are "challenged" - over time, over budget and lacking critical features and requirements.

- Over 52% of IT projects cost 189% over estimates.

- 40% of ERP projects failed to achieve their business objectives within one year after go-live.

- Software projects complete within a range of 42% to 78% of original proposed functionality.

- In many cases, more dollars are spent on project recovery and turnaround than on the original project budget.

Change Has Come…Rapidly

- Budgets are slashed…staffing is cut.

- Portfolios are scaled down to include only the most mission-critical strategic projects.

- Remaining projects must be delivered faster and with superior quality using fewer resources.

We Need to do More with Less

Now, more than ever, businesses need to close the gap between strategic investments and tactical outcomes to maintain a competitive advantage and sustainable profitability.

Costly surprises, flawed information, and limited visibility into project performance dilute ability to deliver business value, increase sales and maximize profits.

Only Outcomes Matter

- A significant amount of money is spent on programs and projects that never achieve the value that was intended.

- Organizations that consistently meet objectives:

  - Conducted program assessments.

  - Hired third party expertise to provide program oversight on their critical programs.

  - Performed thorough root cause analysis of project performance and were actively engaged in change management and process improvement.
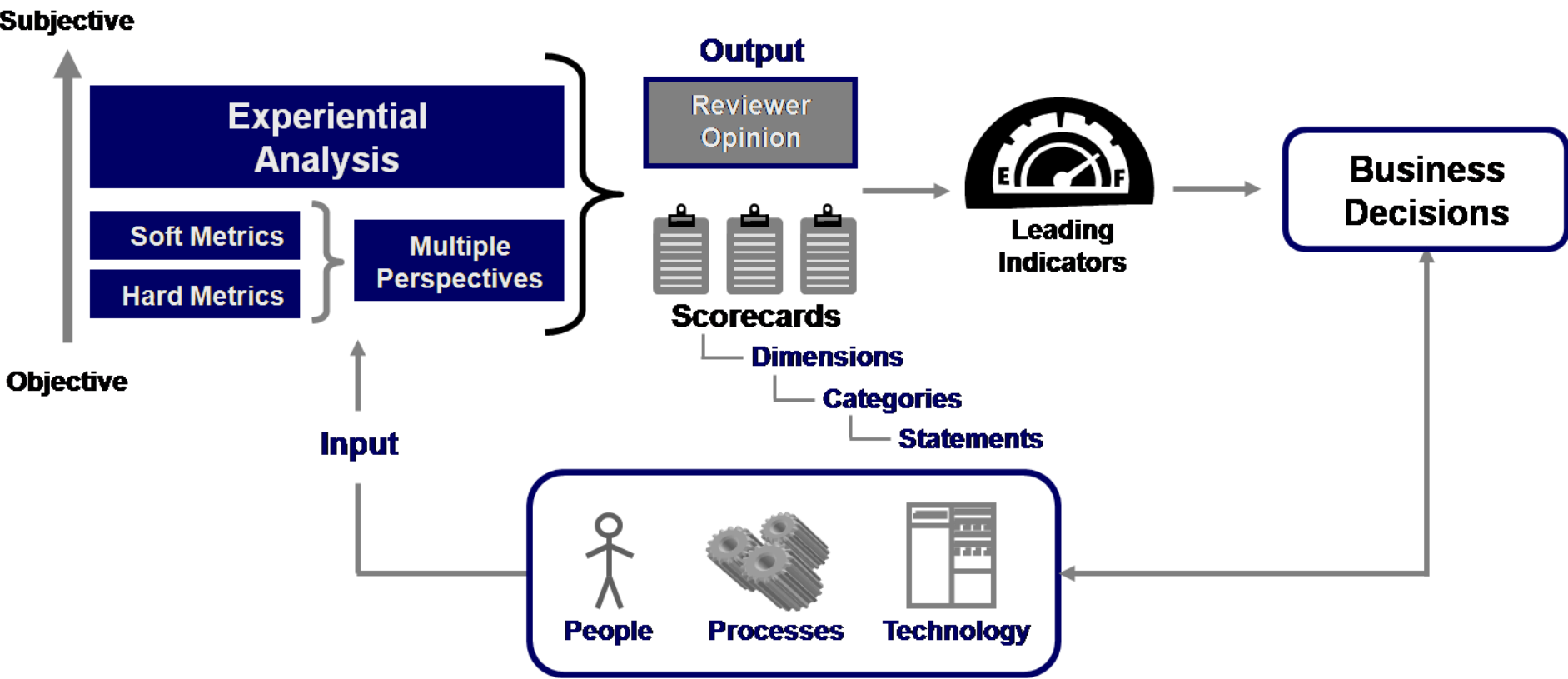
Source: Gartner Consulting, "Critical Program Management"

360° Project Lifecycle Health Assessment

- An preventive oversight and governance process for managing risk and improving project performance throughout the lifecycle.

- Unbiased, independent verification and validation.

- Blends in-depth analysis, best practices, and professional experience.

- Combines both objective and subjective project "intelligence" filtered through multiple perspectives.

The 360° Perspective

Level of Insight, Control & Preventive Capability

Low ➜ High

Subjective

Objective

Experiential Analysis

Soft Metrics

Hard Metrics

Multiple Perspectives

Input

Output

Reviewer Opinion

Scorecards
└─ **Dimensions**
　　└─ **Categories**
　　　　└─ **Statements**

Leading Indicators

E F

Business Decisions

People **Processes** **Technology**

What's the Value?

- Diagnose and manage the health of mission-critical initiatives more effectively.

- Predict, manage and control risk events before they become costly surprises.

- Challenge potentially flawed information, identify root cause and prevent degradation of future performance.

- Detect strategies, tactics, patterns and behaviors that compromise organizational and project objectives.

- A closer approximation of "truth" than can be determined with conventional methods and tools.

What's the Value?

- Identify and take action to solve immediate problems and actively prevent marginal or unacceptable project performance.

- Reduce cost overruns, late delivery, sponsor dissatisfaction, cost of poor quality and diluted business functionality.

- Accelerate delivery and throughput.

- A high value for investment with minimal disruption to project teams.

Representative Results

IT Services firm - $52 million project portfolio, 12-month period:

- $10.3 million (20%) reduction in cost overruns

- 42% reduction in cost of poor quality

- 12% increase in projects delivered early

- 46% increase in compliance to methodology/standards

- 14% increase in client satisfaction levels

Who Sponsors Assessments?

- Board of Directors – Audit Committee

- Enterprise Strategy / Planning

- Mergers / Acquisitions

- Internal Audit

- Risk Management

- Process Improvement

- Quality Management

- Six Sigma

- Methods and Standards

- Portfolio Management

- Project Management Office (PMO)

- Solution / Service Delivery Groups

- External Auditors

Who Conducts Assessments?

Senior resources skilled in project management and related disciplines:

- Quality Assurance Manager

- Portfolio Director / Manager

- PMO Director

- Senior Program / Project Managers

- Project Coach / Mentor

- Product Manager

- Six Sigma / ISOx / CMMI Practitioner

- Independent Verification/Validation (IV&V) Assessor

- Internal Auditor / Compliance Manager

- Third-party independent oversight contractors

What do Assessors do?

- Provide independent, unbiased oversight and results reporting for external and internal initiatives throughout the project lifecycle.

- Coach and assist Project Managers and teams in identifying, monitoring, and stabilizing critical project variables.

- Detect, measure, and communicate risk events, initiate and monitor preventive and corrective actions and outcomes.

- Lead the dissemination of quality and project management knowledge throughout the organization.

When Should Assessments be Conducted?

- Early and often…scheduled at key checkpoints throughout the project lifecycle with follow-up as required.

- Based on examination of project plan / schedule and size / complexity of project.

- Ad hoc upon discovery or anticipation of risk.

- Mandated by senior management.

- Informally scheduled to challenge decisions, gain insight and provide coaching and mentoring.

What's the Time Commitment?

Time and resource commitment increases as **risk** increases…

- **Coaching / Mentoring with "Informal" Assessments:** continuous and ad hoc with a duration of 2-8 hours or more per week.

- **Project Health Assessments:** scheduled continuously or ad hoc with durations of 1-5 days throughout the project lifecycle depending on size and complexity.

- **Project Audit:** a single event with a duration of 3-10 days or more of intensive examination, interview, analysis, and reporting upon discovery of significant risk that is, or has been, unmanaged.

- **Intervention:** full time until recovery or termination is complete.

What Do You Need to Start?

- Executive sponsorship and commitment.

- Clear span of authority.

- Approved performance objectives and measures of success.

- Internal or third-party assessors skilled in project management and relevant disciplines.

- Flexible selection criteria for assessment targets.

- Optimal performance measurement criteria based on industry and in-house best, or proven, practices.

- Tools and templates for scoring compliance and reporting results.

What's the Process?

I. Define and Enable.

II. Measure and Analyze.

III. Take Action and Monitor Results.

IV. Learn and Improve.

I. Define and Enable

- Develop relevant measurement criteria based on optimal performance objectives.

- Build reusable, scalable scorecards and reports that fulfill organizational requirements.

- Identify and prioritize assessment targets.

- Collect available project information, determine expertise required, and secure assessment team resources.

- Schedule and communicate project assessment expectations to participants.

Measuring what Matters

- Keep it simple…mature the process in small, manageable steps that are culturally acceptable.

- Start with industry-proven and proprietary "best practices" that are realistic, align with strategic objectives and represent an achievable future state.

- Base your selection on recurring problems, risk events and cultural behaviors.

- Avoid overwhelming volumes of non-critical and irrelevant measurement criteria.

Choose What Works for Your Organization

Take the standards and practices that add value and leave the rest.

- Agile, ASQ, ANSI, ASTM
- Balanced Scorecard, BPI, BPM, BPR
- CMMI, COBIT, COSO
- DICE
- Earned Value Mgt
- Force Field, Function Point

- Lean
- IEEE, IIA, IMSA, IPMA, ISACA, ISO, ITIL, IVV
- Kaizen
- MSP
- NIST
- OPM3

- PLM, PMBOK, Prince2
- QMS, Quality Circles
- Root Cause, RUP
- SDLC, Scrum
- SEI, Six Sigma
- TOC, TQM
- and on and on…

Building a 360° Project Scorecard

- A tool used to help the Assessor collect and aggregate the right information to make decisions about the health of a program or project at a given point in time.

- A governance roadmap applied uniformly across all projects to achieve consistent data-gathering results.

- Reduces level of assessment subjectivity.

- Provides an audit trail and foundation data for reporting.

- Drives accountability and transparency.

- Should be tailored to your organization.

Key Components of a 360° Scorecard

- Dimensions of measurement…perspective, or "camera lens".

- Appropriate categories, or sub-component of a dimension.

- Measurement criteria linked to optimal performance.

- Scoring rubric to assign compliance to criteria.

- Weight, prioritization, and criticality values.

- Progress since last assessment.

- Preventive / corrective action tracking.

- Date/time stamps, comments, observations, rationale, references.

- Dashboards with breakdown of scores and subjective opinion for individual and aggregate assessments.

Key Components of a 360° Scorecard

- Scorecard measurement criteria should reflect:
  - Relevant standards for your organization
  - Industry best, or proven, practices
  - Optimal performance - "All open product defects have been investigated, assessed for customer impact and workaround, and assigned severity levels."
  - Single conditions wherever possible

- Weighting the importance of each criterion helps refine and focus the scoring.

- "Show-stoppers" should be marked as "critical" and assigned a greater weight.

Scorecard and Dashboard Examples

MSWord Document

Application Developers' Architecture Checklist

To ensure that your software architecture is sound and will properly enable and support the application and its users, ask yourself these questions. If you respond 'No' to any question, reevaluate that aspect of the application architecture design.

	Yes	No
Is the overall program organization clear, including a good architectural overview and justification?		
Are modules well defined, including their functionality and interfaces to other modules?	X	
Are all the functions listed in the requirements correctly addressed with the right number of modules?		X
Are all major data structures described and justified?		
Are major data structures hidden by access functions?		
Is the database organization and content specified?	X	
Are all key algorithms described and justified?	X	
Are all major objects described and justified?	XX	
Is the user interface modularized so that changes in it don't affect the rest of the program?	X	
Is a strategy for handling user input described?		X
Are all key aspects of the user interface defined?		
Are memory use estimates and a strategy for memory management described and justified?		X
Does the architecture set space and speed budgets for each module?		
Is a strategy for handling strings described, and are character-string-storage estimates included?		
Is a strategy for handling I/O described and justified?		
Is a consistent error-handling strategy included?		
Are error messages managed as a set to present a clean user interface?		
Is the level of robustness specified?		
Have all necessary buy vs. build decisions been accounted for?		
Is the architecture designed to accommodate changes that are likely to occur?		
Is every part of the architecture within the scope of specifications?		
Are the major system goals clearly stated?		
Does the complete architecture hang together conceptually?		
Is the top-level design independent of the machine and language that will be used to implement it?		
Are motivations given for all major decisions?		
As a programmer who will implement the system, are you comfortable with the architecture?		

Scorecard and Dashboard Examples

MSExcel Spreadsheet

Scorecard and Dashboard Examples

Web-based Application

Assessment Selection Considerations

- High strategic or political value.

- High risk / consequence of failure.

- Large budget.

- Legal or regulatory mandate.

- New or complex technologies.

- Significant impact on internal or external initiatives.

- Unique contractual or billing arrangements.

- Project Team has little or no experience with this type of project.

- Resources are outsourced or in multiple geographic locations.

II. Measure and Analyze

- Access project data repository.

- Examine project evidence, artifacts, work products and data from PMIS and financial systems; for example,
    - Contracts / SOWs, procurement documentation, SLAs
    - Charter, business case, risk assessments
    - Project plan, WBS, schedule, budget, change requests, deliverable acceptance forms
    - Business requirements, test plans / scripts

- Look for deficiencies and "red flags" that signal immediate or imminent risk.

II. Measure and Analyze

- Use customized 360° scorecards to measure and score compliance to qualitative and quantitative performance criteria throughout the project lifecycle.

- Conduct interviews with key stakeholders.

- Assess performance, identify causal factors, record subjective opinion and make recommendations.

- Respond to risks and constraints.

- Coach and mentor project managers and project teams.

III. Take Action and Monitor Results

- Address immediate and anticipated risk.

- Close the gap…implement effective preventive and corrective actions.

- Report objective / subjective findings, recommendations, actions, outcomes and lessons learned.

- Communicate what's right, what's wrong, what you are doing about it, if it's working, and if objectives will be met.

- Monitor actions and outcomes to resolution.

- Escalate and intervene when necessary.

What are Preventive and Corrective Actions?

- Preventive or Corrective Actions are risk mitigation directives that relate to specific measurement criteria, and cultural / political realities.

- Should be required for any non-compliant element of a project health assessment.

- Actions describe the problem, risk categories, response strategies, consequence of failure, priority and status.

- Action plans have SMART objectives and include discrete actions to solve the problem, owners, due dates, references and expected outcomes once the problem is solved.

- Actions may remain open well after the assessment is complete and must be monitored to resolution whether they succeed or fail.

IV. Learn and Improve

- Analyze results from preventive and corrective action outcomes to prevent future degradation of performance and enable continuous improvement.

- Harvest and leverage lessons learned to improve processes and future performance measurement criteria.

- Adjust continuously…calibrate and enhance performance measurement criteria, scorecards and dashboard reports.

Summary

360° Project Lifecycle Health Assessments combine quantitative and qualitative measurement of performance against relevant criteria filtered through multiple perspectives with professional experience, analysis and opinion.

Projects are all about change and the value it provides. This preventive, common-sense approach delivers a closer approximation of "truth" regarding project health, a vehicle for continuous improvement and a safeguard against loss of planned value.

360°

Project Lifecycle
Health Assessments

Anthony Mattucci, CEO, Milano, Inc.

mattuccia@milanoinc.biz