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STRATEGY. SOLUTIONS. SUCCESS.

Skip the Detour

Enabling Action-Oriented Information thru Collection, Cleansing and Consolidation

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Agenda

- Introduction
- Stage Setting
- Assessment and Alignment
- The Measurement Roadmap
- Challenges
- Results and Lessons Learned

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Stage Setting

- The PM needs visibility across multiple projects within his family-of-systems
- Data is managed in various systems, files and databases
- Available data was in various formats
- Base measures were available for some needs, but calculations were needed to obtain some derived measures
- Not all needed base measures were available

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The Detour

Detour

Organizational Detour: Mountains of data that fail to provide actionable information

Cultural Detour: Actionable information is available but it's not used

Technical Detour: Tool implementation that doesn't meet organizational needs

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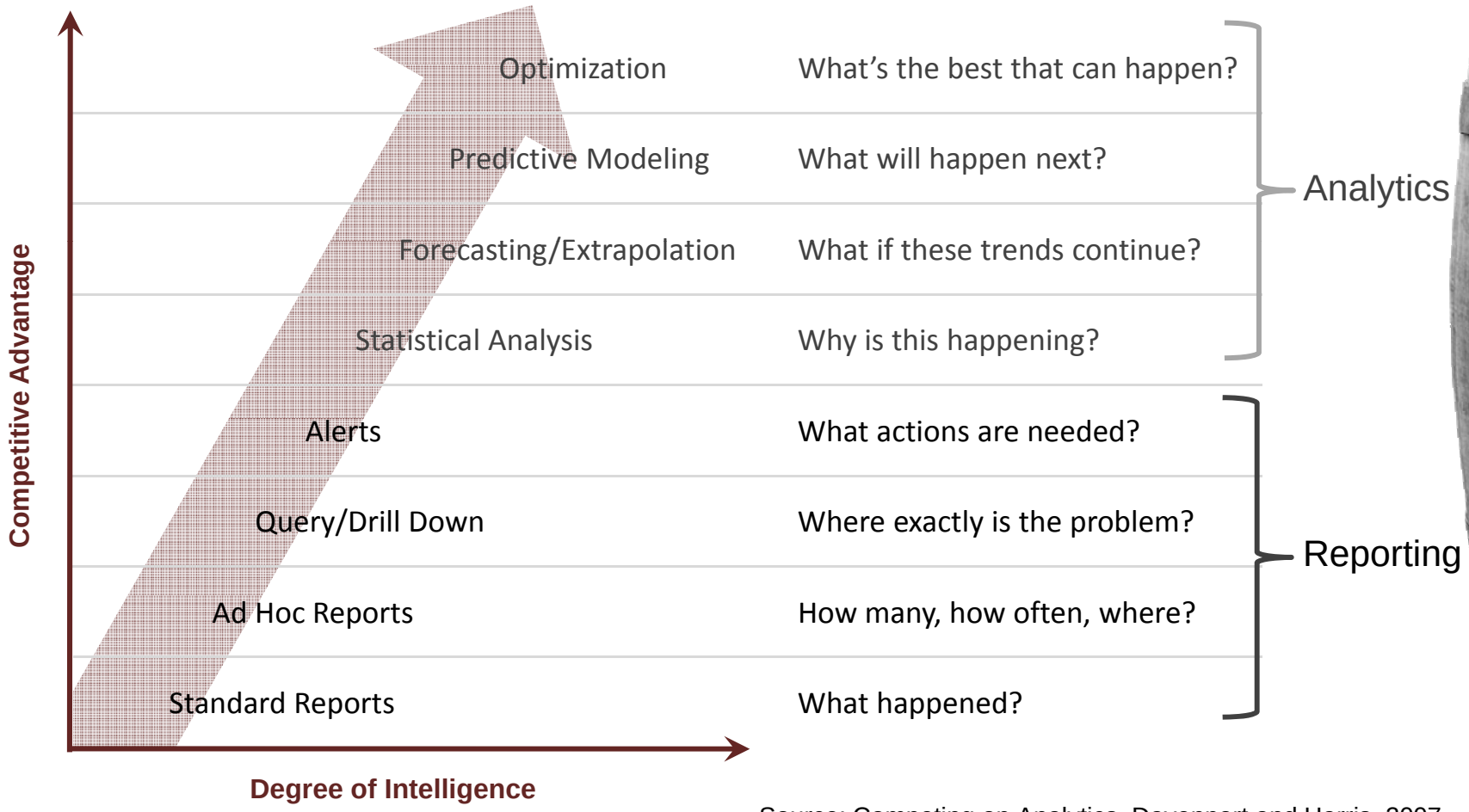
Measurement Continuum



Source: Competing on Analytics, Davenport and Harris, 2007

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Measurement Capability Roadmap

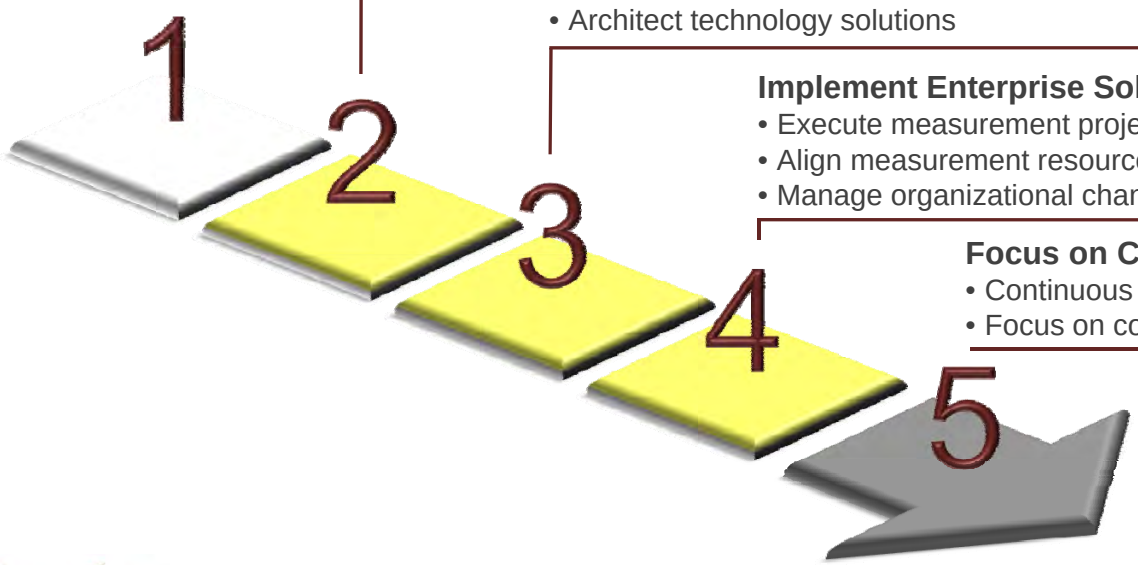
Assess Existing Data and Analytical Capabilities
- Assess analytical capabilities
- Assess existing data and alignment

Implement Small Project and Document Benefits
- Find a sponsor and business problem
- Implement a small, localized project
- Document the costs and benefits

Develop Enterprise Metrics and Architect Solutions
- Define and manage a set of achievable performance metrics
- Align analytical resources and establish timetable
- Architect technology solutions

Implement Enterprise Solution and Organization Changes
- Execute measurement projects
- Align measurement resources across the organization
- Manage organizational changes

Focus on Continuous Improvement
- Continuous benefits
- Focus on continual improvement



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Implementation Challenges

- Organization
  - The right information to the right people at the right time
  - Performance management and strategy execution
  - Process redesign and integration
- Culture
  - Leadership and senior executive commitment
  - Establishing a fact-based culture
  - Securing and building skills
  - Managing analytical people
- Technology
  - Quality data
  - Analytic technologies

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Capability Assessment

Alignment

Increased Capability

Roadmap Stage	Organizational	Cultural	Technical
Assessment			
Small-scale Implementation	**Autonomous Efforts**		
Enterprise Solutions	**Coordinated Planning**		
Enterprise Implementation	**Coordination Execution**		
Continuous Improvement			

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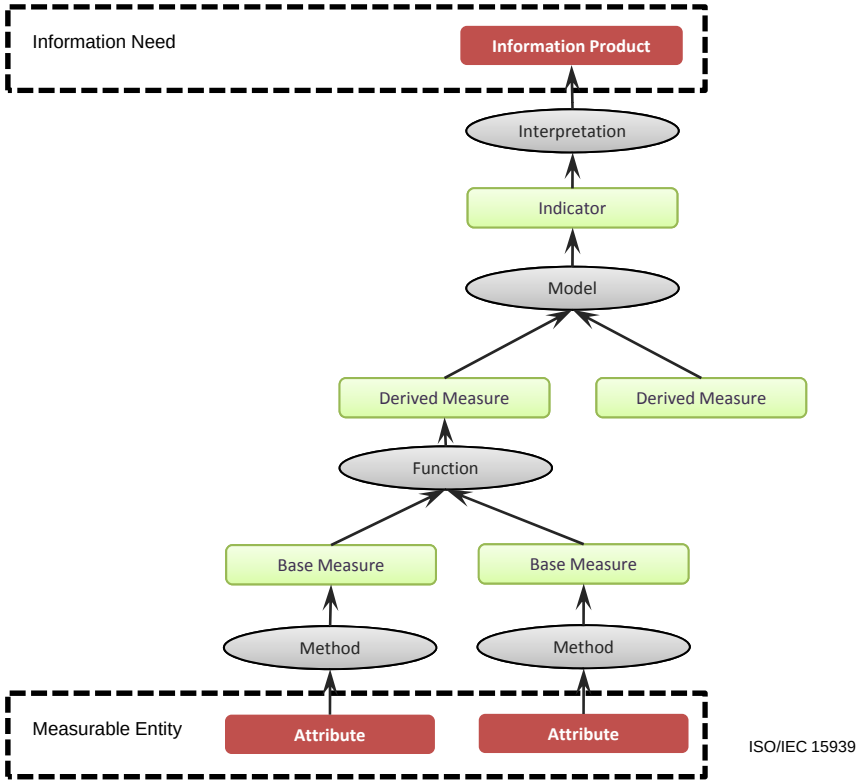
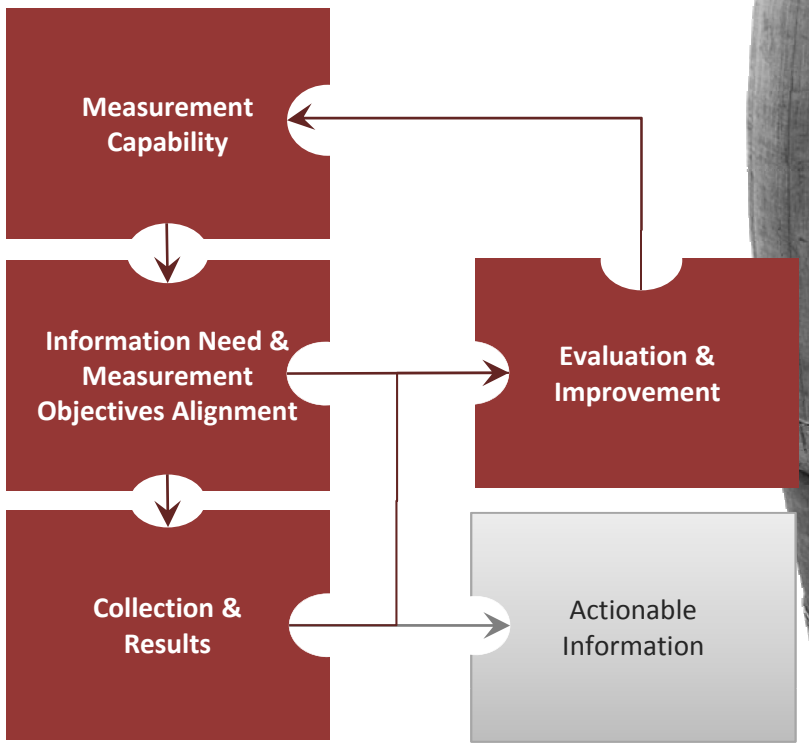
Organizational Challenges

- The right information to the right people at the right time
- Performance management and strategy execution
- Process redesign and integration

Solution: Build a Consistent Data Model and Apply a Consistent Measurement Process



ISO/IEC 15939



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What Does the PM Need to Know?

Goal 1: Meet the needs of the end user and the stakeholder community

Goal 2: Enhance financial management and execution oversight

Goal 3: Improve acquisition, supportability and engineering processes

Goal 4: Develop core acquisition functions among the workforce

Questions:

- Are the projects on track?
- Are the projects on schedule?
- Do projects have approved requirements? What is the status of a project's requirements?
- What is the degree of risk associated with each project? Which projects are most at risk?
- Who is supporting a project? Is there adequate staff? Is the staff adequately skilled?
- How many of each type of project is in the portfolio? How many projects are in each major phase?
- Does the project have sufficient money to conduct acquisition activities on this project?
- What is the current funding status? How do we compare against OSD and FMB Benchmarks?
- What are the current year funding deficiencies? By cause? By project? By impact?
- What is the value of contracts that are ending in the next quarter, half year?
- What is the value of current contracts for each team?
- What are the values of the contracts each project officer is managing?

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Example Goal-Question-Indicators

Questions	Goal	Indicator	Measures
Are the projects on track?	2	Milestone Completion	• Milestone Progress • Interim Progress • Trend
What is the degree of risk associated with each project? Which projects are most at risk?	1	Risk Status	• Risk Likelihood • Risk Impact
Are the projects on schedule?	1	Milestone Completion Work Unit Progress	• Milestone Dates • Test Cases Passed • Requirements Tested • Reviews Completed
What is the current funding status? How do we compare against OSD and FMB Benchmarks?	2	Financial Adequacy	• Obligation Rates • Disbursement Rates • Funding Availability
Has the program office established realistic cost and schedule estimates for the projects?	1	Schedule Feasibility Cost Feasibility	• Schedule Probability • Cost Probability
Do the projects have sufficient money to conduct acquisition activities?	2	Financial Performance	• Cost • BCWS, BCWP, ACWP

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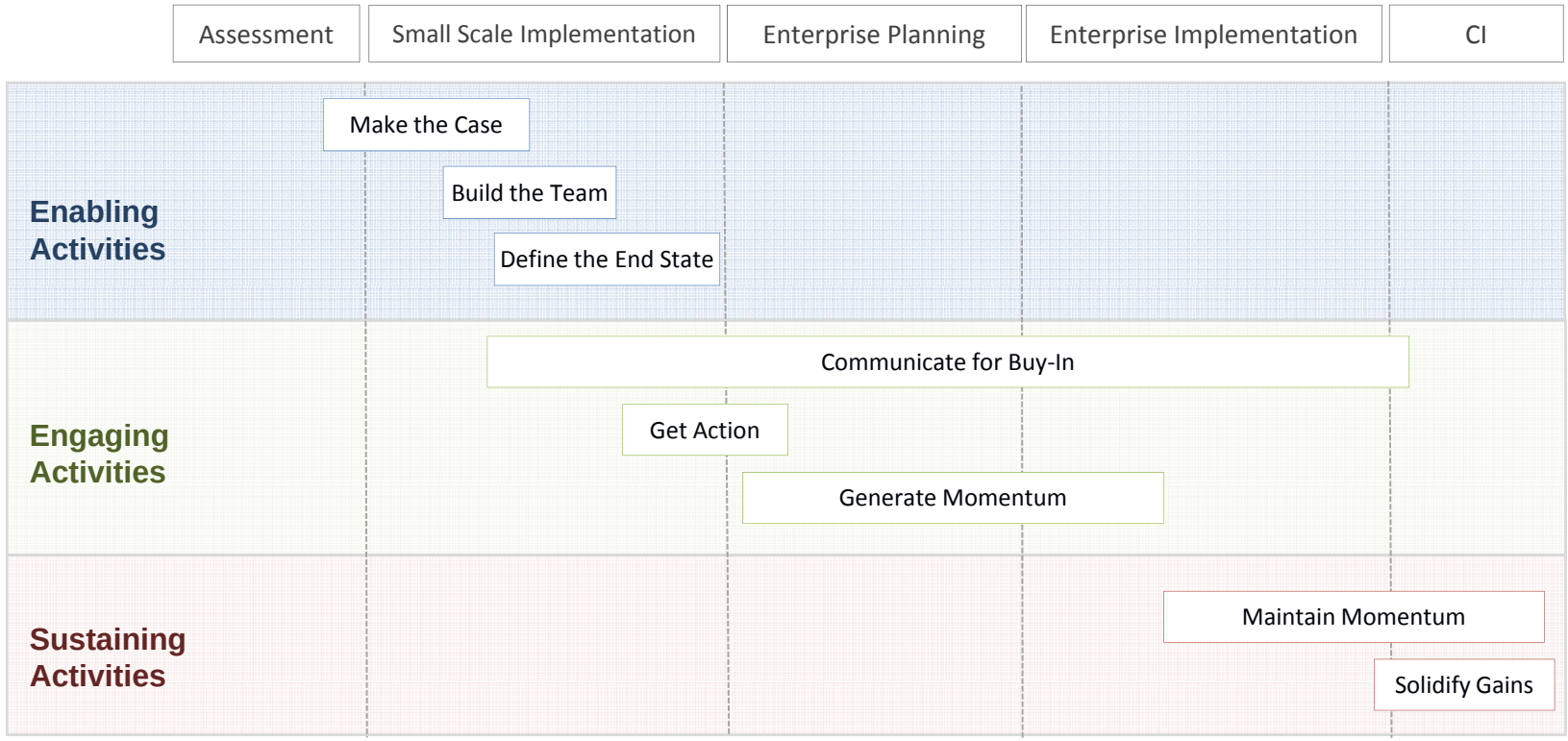
Human Challenges

- Senior executive commitment
- Establishing a fact-based culture
- Securing and building skills
- Managing analytical people

Solution: Execute Organizational Change Management Activities in Alignment with Measurement Roadmap



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Key Items to Consider

- Gaining alignment with executive sponsorship
- Cascading alignment through the organizational structure
- Manage concerns and capabilities among the workforce

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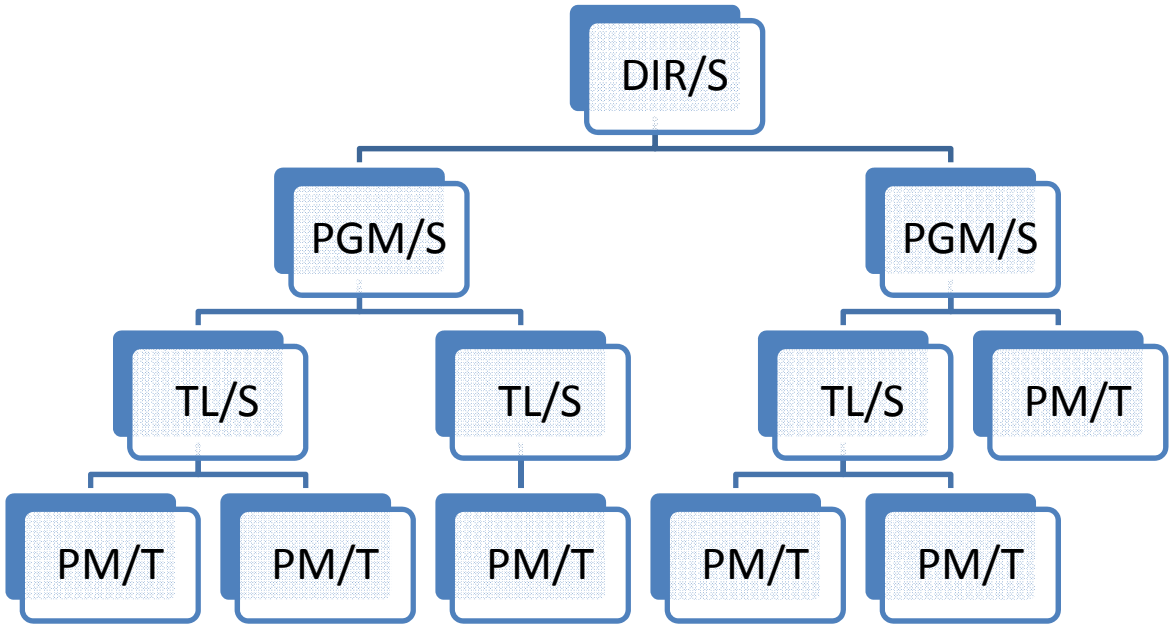
Key Role Map is… well key



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Technology Challenges

- Quality data
- Ability to share information
- Measurement and analytic technologies

Solution: Mature and Architect Technology in Accordance with Needs Specific to Each Stage of the Measurement Roadmap

- **Assessment:** Understand performance measurement needs, determine information needs, align to organizational strategy
- **Small-scale Implementation:** Align information needs, measurement functions and measureable entities
- **Enterprise Solutions:** Standardize data and technology governance
- **Enterprise Implementation:** Establish and manage technology architecture
- **Continuous Improvement:** Technology refresh and upgrades

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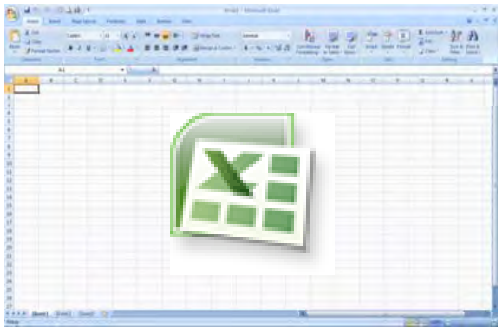
Why Not the Simple Solution?

We know it's a natural choice.

- No learning curve
- Available & easy to use
- Macros may help



BUT…

- Difficult to access easily
- Burdensome data integrations
- Hard to support multiple users

Problems Implementing Measurement

Read document

Generate scripts

Establish Mgmt policy

What happens when the policy, script or graphs change?

Run scripts

Collect & validate data

It stops working!

Produce charts

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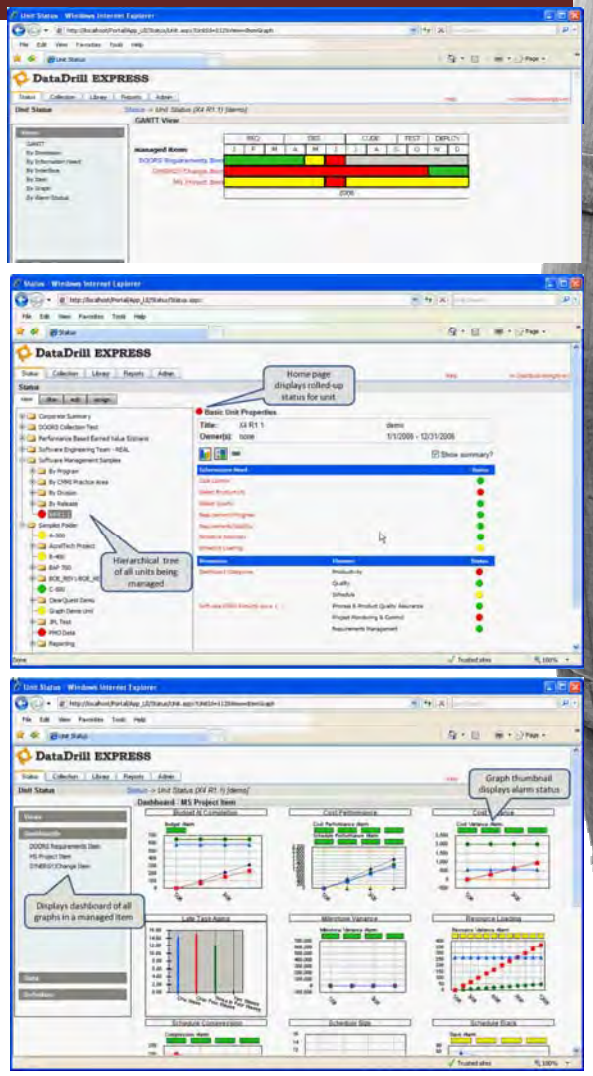
Why DataDrill?

DataDrill EXPRESS saves time and money, and gets better results.



- Automated Data Collection
- Library of Best Practices
- CMMI/ISO-based Information Model
- Efficient Deployment
- No Learning Curve
- Available & Easy to Use
- Macros May Help

Microsoft Excel — DataDrill EXPRESS

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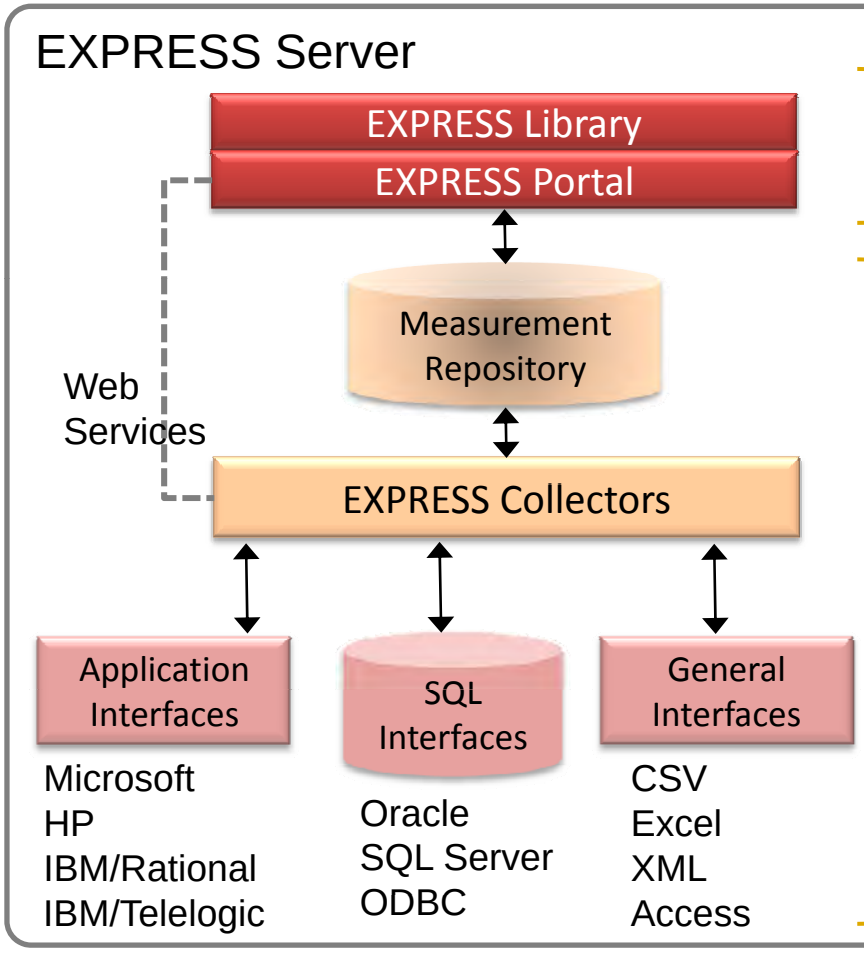
DataDrill Express Components

Managers

Administrators

Executives

EXPRESS Web Client license types



Sample Indicator - Financial Adequacy

Team	Project	Appropriation	Funding Reference	Year	Authorized	Committed	Obligated	% CMT	% OBL	UNOBL AMT	%OBL OSD Benchmark	OSD OBL Benchmark Status	%OBL FMB Benchmark	FMB OBL Benchmark Status
Team A	Project A	PMC	999999	2009	$5,777,128	$5,300,626	$5,743,566	91.75%	99.42%	$33,562	91.7%	7.7%	92.0%	7.4%
				2010	$1,285,000	$1,024,840	$1,024,840	79.75%	79.75%	$260,160	81.7%	-1.9%	82.0%	-2.2%
				2011	$4,515,000	$598,500	$596,545	13.26%	13.21%	$3,918,455	13.3%	-0.1%	6.0%	7.2%
		RDTE	C9999A	2011	$1,028,000	$144,200	$144,200	14.03%	14.03%	$883,800	15.0%	-1.0%	31.0%	-17.0%
		OMMC	XAXA	2011	$2,509,394	$65,570	$65,570	2.61%	2.61%	$2,443,824	16.7%	-14.1%	21.3%	-18.7%
	Project A Total				**$15,114,522**	**$7,133,736**	**$7,574,721**	**47.20%**	**50.12%**	**$7,539,801**				
	Project B	RDTE	C9999F	2010	$1,622,400	$1,424,222	$1,424,222	87.78%	87.78%	$198,178	91.7%	-3.9%	95.8%	-8.0%
				2011	$1,133,000	$169,950	$169,950	15.00%	15.00%	$963,050	15.0%	0.0%	31.0%	-16.0%
		OMMC	XAXA	2011	$1,715,000	$980,000	$72,797	57.14%	4.24%	$1,642,203	16.7%	-12.5%	21.3%	-17.1%
	Project B Total				**$4,470,400**	**$2,574,172**	**$1,666,968**	**57.58%**	**37.29%**	**$2,803,432**				
	Project C	PMC	999999	2009	$4,723,872	$4,332,000	$4,332,000	91.70%	91.70%	$391,872	91.7%	0.0%	92.0%	-0.3%
		RDTE	C9999B	2011	$502,000	$75,300	$74,000	15.00%	14.74%	$428,000	15.0%	-0.3%	31.0%	-16.3%
		OMMC	XAXA	2011	$74,803	$48,803	$48,803	65.24%	65.24%	$26,000	16.7%	48.5%	21.3%	43.9%
	Project C Total				**$5,300,675**	**$4,456,103**	**$4,454,803**	**84.07%**	**84.04%**	**$845,872**				
	Project D	PMC	999999	2010	$1,719,000	$1,118,994	$984,286	65.10%	57.26%	$734,714	81.7%	-24.4%	82.0%	-24.7%
	Project D Total				**$1,719,000**	**$1,118,994**	**$984,286**	**65.10%**	**57.26%**	**$734,714**				

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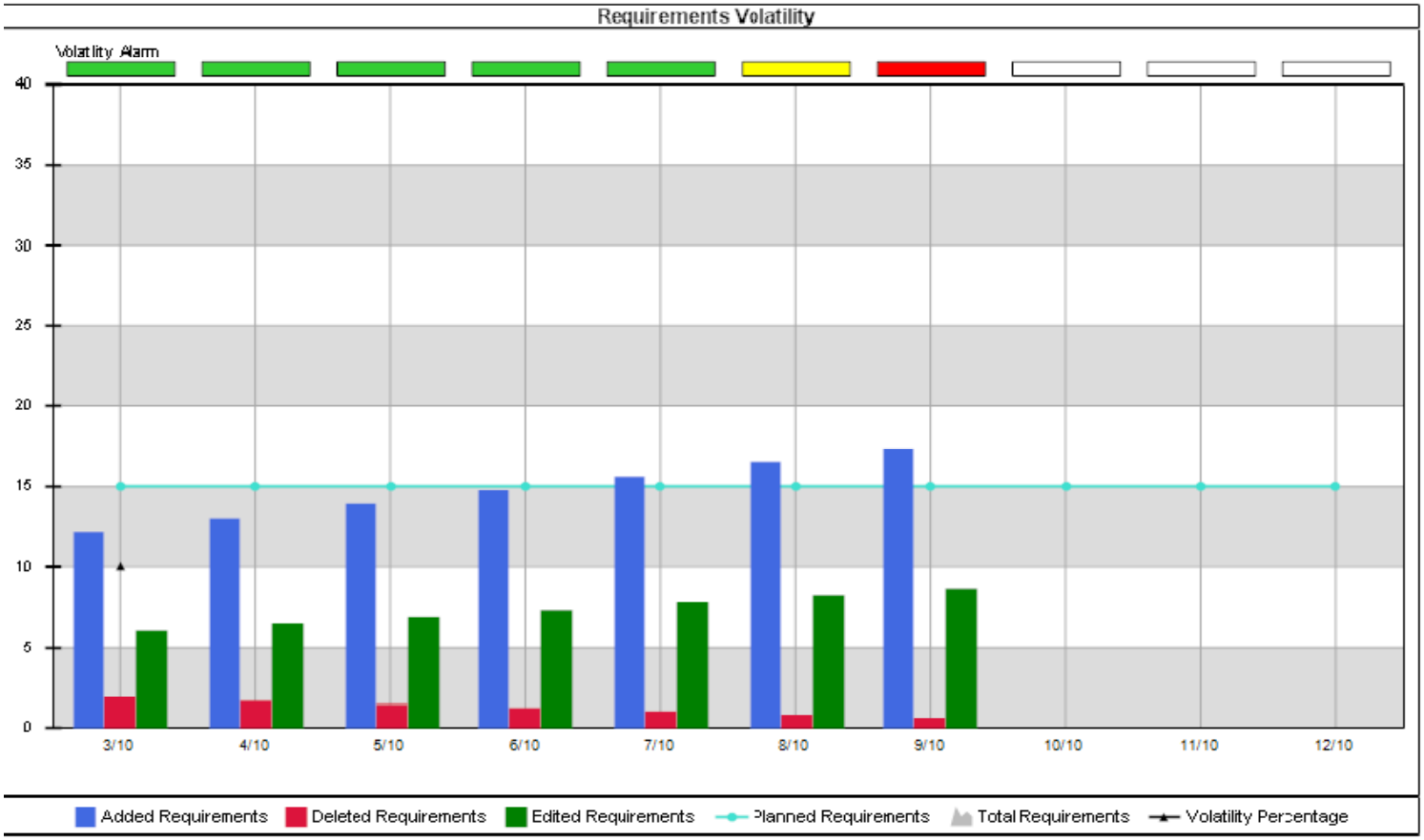
Sample Indicator – Requirements Volatility



Summary

- The implementation of a measurement capability provides both reporting and analytical capabilities
- A well-defined roadmap for implementing a measurement capability provides a disciplined approach
- This disciplined approach addresses process, organizational and technical challenges

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List of Acronyms

- ISO/IEC 15939 – International Organization for Standardization/International Electrotechnical Commission: System and Software Engineering Measurement Process
- CI – Continuous Improvement
- DIR/S – Director/Sponsor
- PGM/S – Program Manager/Sponsor
- TL/S – Team Lead/Sponsor
- PM/T – Project Manager/Target
- ODBC – Open Database Connectivity
- XML – Extensible Markup Language
- CSV – Comma Separated Values
- PMC – Procurement
- RDTE – Research, Development, Test and Evaluation
- OMMC – Operation and Maintenance
- % CMT – Percent Committed
- % OBL – Percent Obligated
- UNOBL AMT – Unobligated Amount
- OBL OSD Benchmark – Office of the Secretary of Defense Obligation Benchmark
- OBL FMB Benchmark – Financial Management Branch Obligation Benchmark

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