



Project Controls Expo – 13th Nov 2013

Twickenham Stadium, London

Integrating Risk and Earned Value
Management



Speakers Profile

Jo has provided Project Controls expertise to various industries including Rail, Construction and MoD Programme teams in a number of major defence programmes within the Land and Naval environments. Specifically she has supported, Governance, Risk, Schedule and Earned Value Management. She has performed many risk qualitative and quantitative analyses, integrated baseline reviews and cause and effect workshops. She is a Principal Consultant and Professional Trainer and is the Training Capability Lead for BMT Hi-Q Sigma.

Jos has specialised in Planning and Risk Management within Defence for the last four years, having previously provided Project Controls assistance within the Aviation domain. She has facilitated risk identification workshops and risk reviews and run quantitative schedule risk analysis many times. She has worked extensively in scheduling, and supported many project and programmes in the development of robust schedules applying best practice methodology and approaches. She is a Managing Consultant at BMT Hi-Q Sigma.

BMT Group

- ❑ An international network of subsidiaries providing engineering, design and risk management consultancy
- ❑ Wholly independent partner providing customers with access to expertise around the globe
- ❑ Heritage of research and technology which drives significant ongoing investment in R&D and development of future talent
- ❑ Formed in 1985 through Government privatisation of maritime research and technology organisations
- ❑ Held in beneficial ownership for the staff
- ❑ 2011 turnover £140 million
- ❑ 1300 staff in 22 subsidiary companies (60 Offices) in 23 countries in Europe, North America and Asia



BMT Hi-Q Sigma Overview

- A professional services company comprising of 120 consultants across offices in Bath, Basingstoke and London.
- Operating across the Defence, Energy and Transportation sectors.
- Achieved a turnover in 2011 of ~ £12M.
- As an employee benefit trust with no manufacturing or supply chain interests, we provide truly impartial advice, assistance.
- In the complex world which we know you face every day, our goal is simple and steadfast:

Welcome to clear thinking

BMT Hi Q Sigma Services and Capabilities

- We help to deliver complex programmes through the integration of programme management and systems engineering

We help you achieve clarity through:

- Strategic guidance to organisations in the establishment and management of programmes
- Interventions to optimise existing programmes/projects
- Provision of quality people as interim support



Agenda

- The Background
- Risk Management – A summary
- Earned Value Management – A summary
- Overall EVM Process
- Integrating the two disciplines
- Reasons for NOT implementing EVM and the counter argument
- PMB and Beyond
- Hints and Tips
- Summary

The Human Factor

- You see a backpack unattended on the seat of a bus. Do you?
 - Leave the bus earlier than planned?
 - Alert adjacent passengers immediately?
 - Calmly tell the bus driver?
 - Open it to see what's inside?

- What influences your decision?



QUESTION?

- What level of experience do you have in earned value management?
 - Little or no knowledge of the theory – no practical experience
 - Know the theory – possibly some experience
 - Experienced in EVM possibly implemented but have been involved in data capture/analysis
 - Very Experienced practitioner – implemented EVM, advisor in EVM
- What level of experience do you have in risk management?
 - Little or no knowledge of the theory – no practical experience
 - Know the theory – possibly some experience
 - Experienced in RM possibly implemented but have been heavily involved in facilitating RM
 - Very Experienced practitioner – Risk Manager – Implemented risk. Can do SRA's. Risk Advisor



Background to EVM

- ❑ **1960's** – US DoD – Aid Financial Analysis
- ❑ **1967** – DoD introduce 35 criteria – C/SCSC
- ❑ **1979** – recognised by the Architecture & Engineering Industry
- ❑ **1987** – APM include overview of EVM in PMBOK
- ❑ **1989** – EVM Champion – Undersecretary of State for Acquisition
- ❑ **1991** – Avenger II programme cancelled by Secretary of Defense Dick Cheney – EVM evidence
- ❑ **1995** – EVM criteria reduced to 32 – first ANSI standard 748-A

Background to EVM

- ❑ **2004 - Nuclear Decommissioning Authority** mandate EVM by all Site Licence Contractors delivering the UK Nuclear Decommissioning Programme
- ❑ **2006 - Ministry of Defence** mandate EVM from 01 Jan 06 for the Demonstration phase of all new Category A, B and C projects for DE&S hosted IPTs.
- ❑ **2006 - AS 4817- 2006** updated – based on ANSI and PMBOK
- ❑ **2007 - GEIA Standard** for Earned Value Management - ANSI/EIA-748-B-2007 – last update
- ❑ **2008 - APM** Publish Interfacing Risk and Earned Value Management Guide

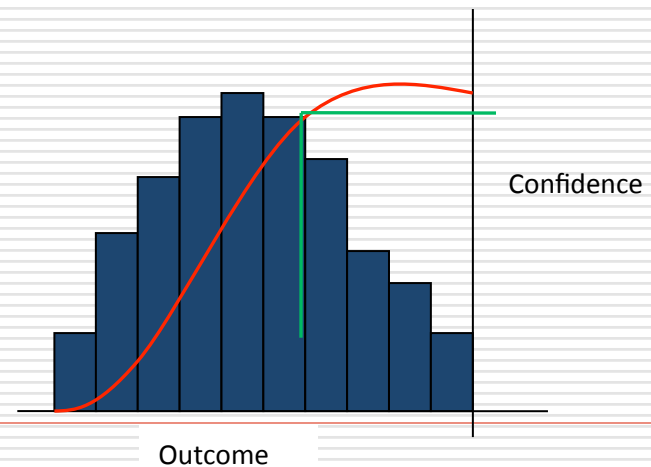
The Risk and Earned Value Management

- What was the aim?
 - Understand the interfaces between the two disciplines and implement practical improvements to increase the chance of delivery to T/C/Q
 - Worked with other professional bodies
 - Defence EVM Implementation Group (DEVMIIG)
 - PMI
 - NDIA etc



Risk Management – A Summary

- ❑ Identifies uncertain future events that could affect the outcome of the objectives
- ❑ Identifies actions to be put in place to reduce the threat or optimise the opportunity
- ❑ Risk exposure = Probability x Impact (crudely)
- ❑ Qualitative and Quantitative assessments - Simulation used to give a confidence level
- ❑ Aids Decision making

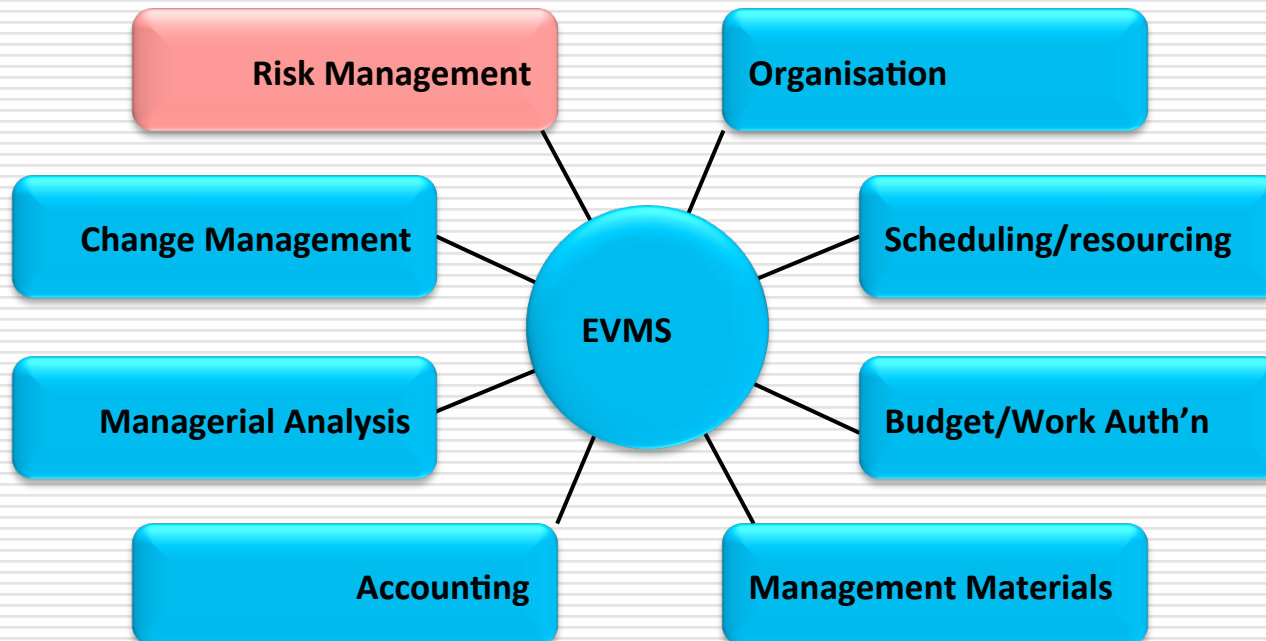


Earned Value Management – A Summary

- Measures performance against a baseline (Performance Measurement Baseline)
- Provides performance trends
- Supplies early warnings
- Enables greater clarity of potential outcomes
- Scaling and appropriate application depending on the project/programme scope and complexity
- Aids decision making
- Gives confidence of delivery

Overall EVM Process

Structured in line with ANSI/EIA 748-1998 from which the APM EVM Guidelines have been developed



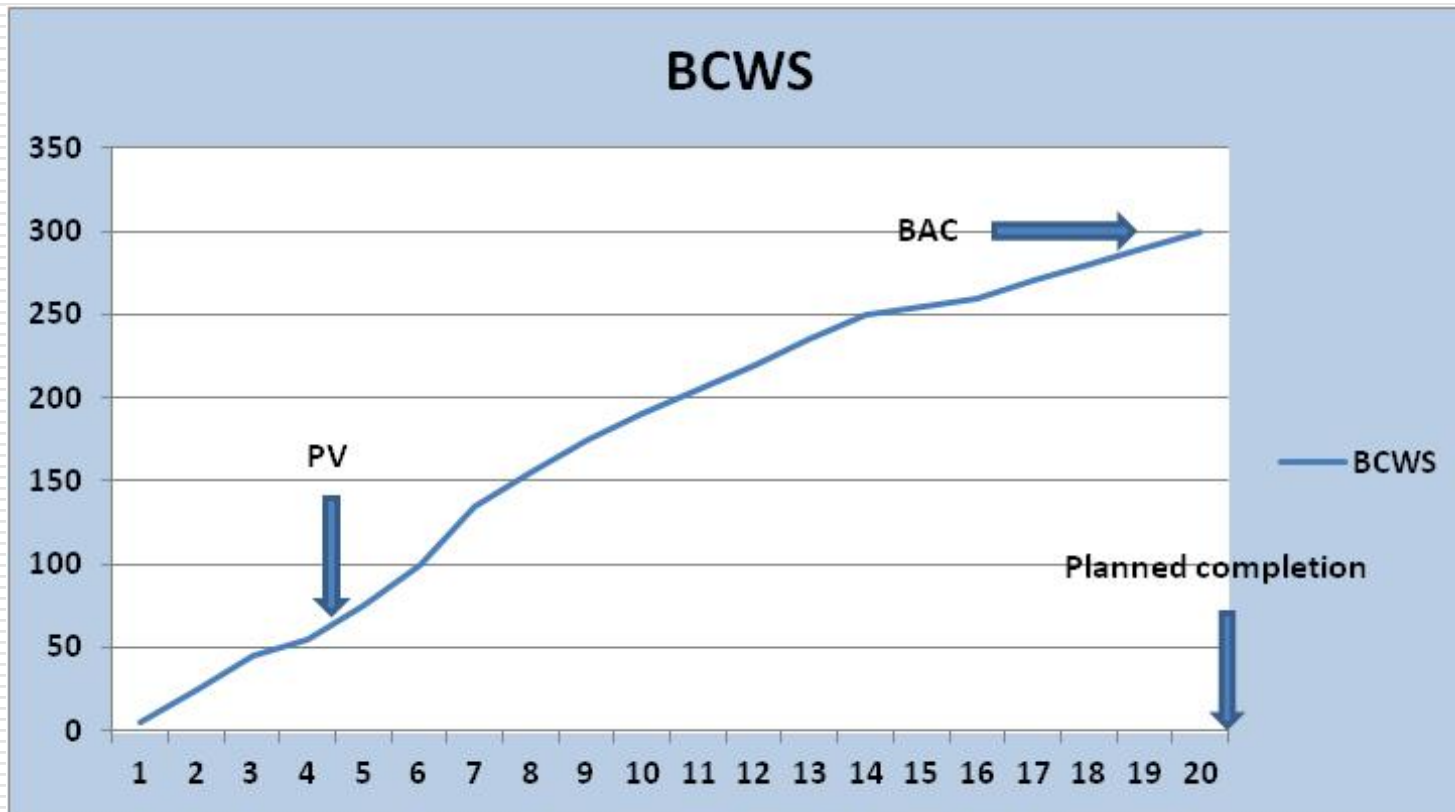
BCWS – The Budget – Planned Value (PV)

TASK	1000's BUDGET	PROJECT DURATION (WEEKS)																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
A	5	5																			
B	20		10	10																	
C	50		10	10	10	10	10														
D	30					10	10	10													
E	10						5	5													
F	60							20	20	20											
G	35										5	5	5	5	5	5	5				
H	50										10	10	10	10	10						
I	20																	10	10		
J	20																			10	10
BAC	300	5	20	20	10	20	25	35	20	20	15	15	15	15	15	5	5	10	10	10	10
		5	25	45	55	75	100	135	155	175	190	205	220	235	250	255	260	270	280	290	300

Budget cost of work scheduled - BCWS - Planned Value (PV)

Duration - 20 weeks

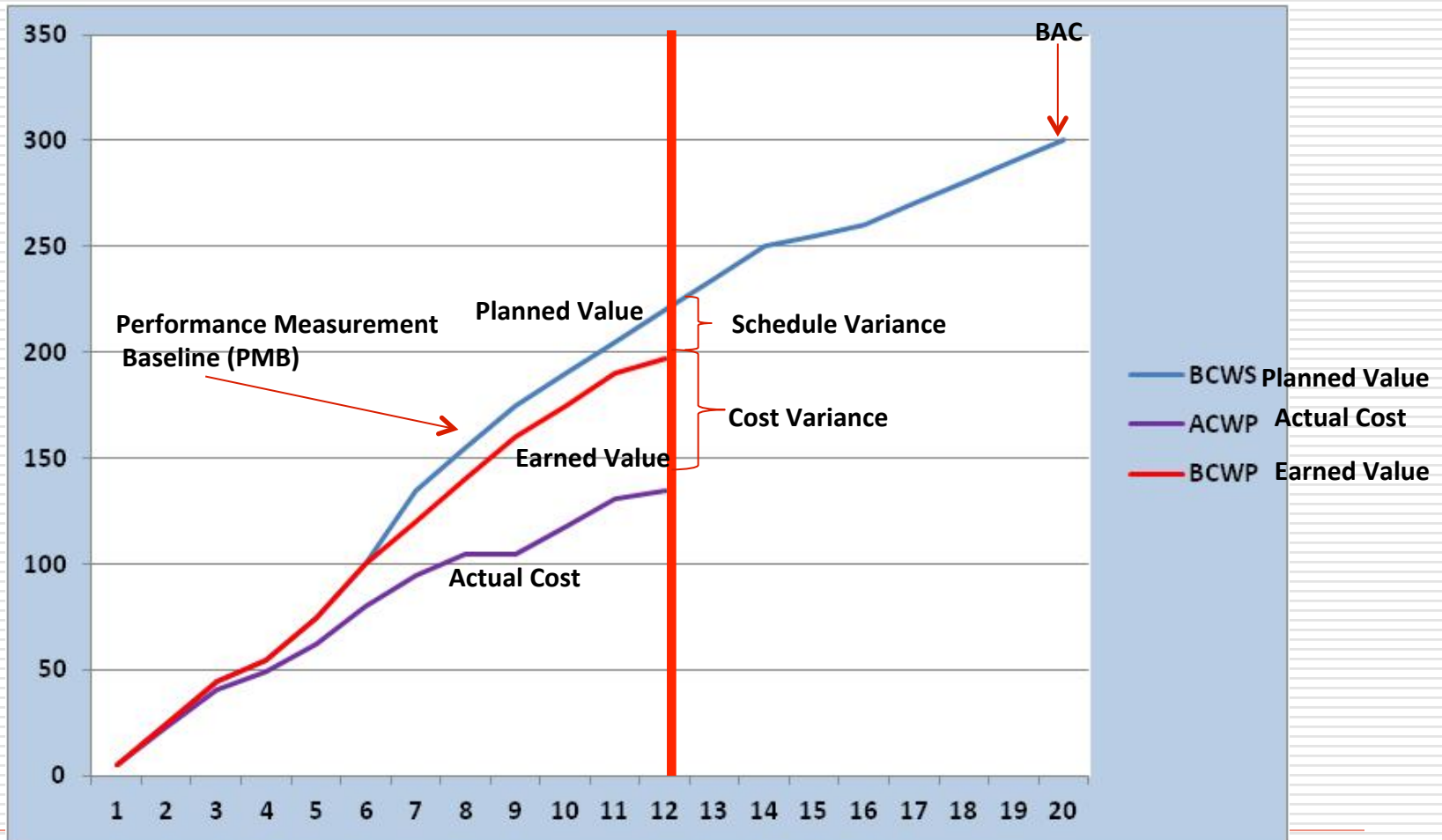
Planned Value - BCWS



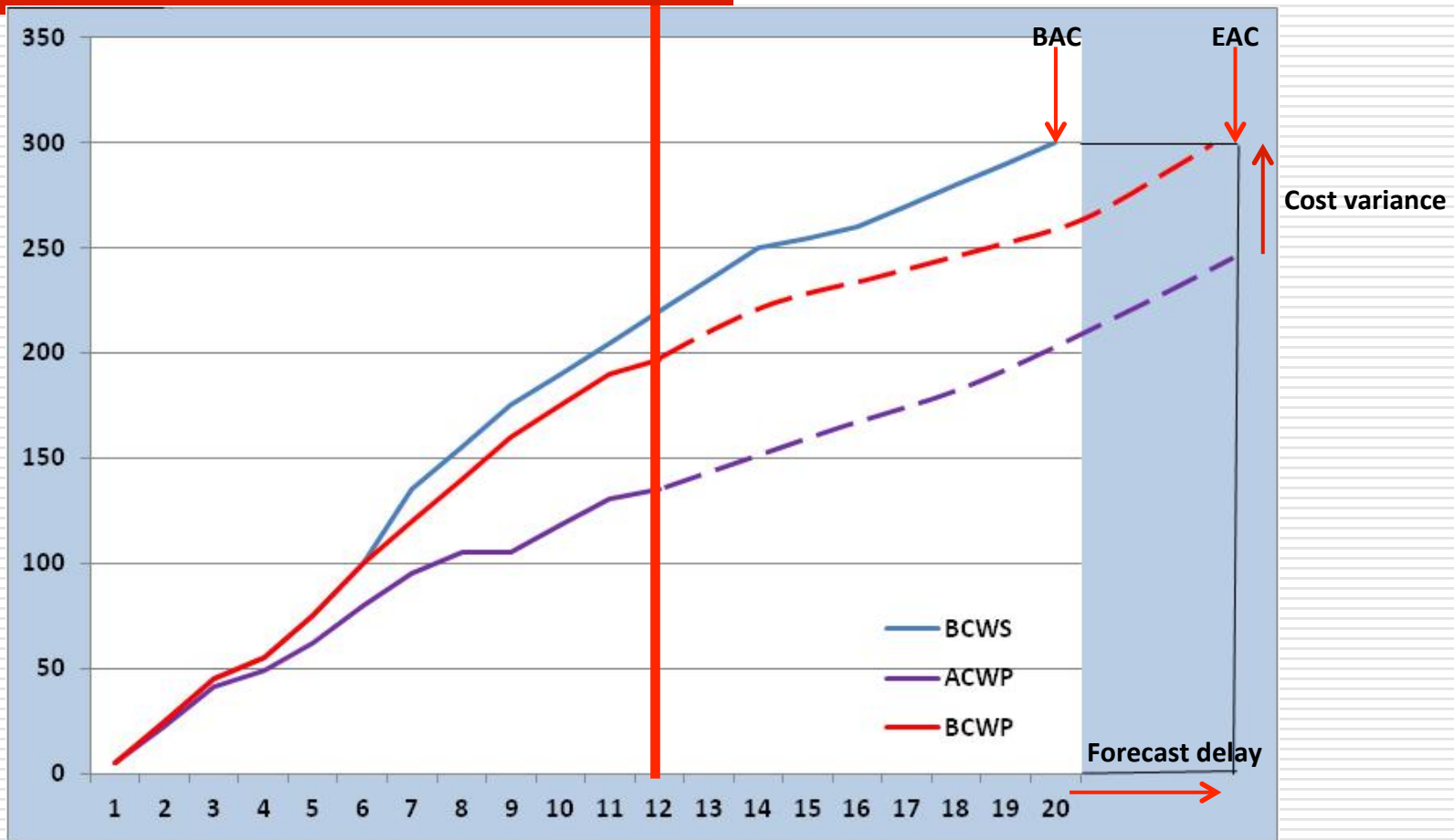
Status at Week 12

		Status at Week 12			
TASK	BUDGET	% Complete	Earned Value £k	Actual Cost £k	Planned Value
A	5	100%	5	5	5
B	20	100%	20	20	20
C	50	100%	50	40	50
D	30	67%	20	10	30
E	10	50%	5	5	10
F	60	67%	40	30	60
G	35	36%	12	10	15
H	50	50%	25	20	25
I	20	0%	0	0	0
J	20	0%	0	0	0

Status at Week 12



Forecasts



Terminology

Question	Answer	Acronym
How much work should have been done?	Budgeted Cost of Work Scheduled (Planned Value)	BCWS (PV)
How much work is actually done?	Budgeted Cost of Work Performed (Earned Value)	BCWP (EV)
How much did the work done actually cost ?	Actual Cost of Work Performed (Actual Cost)	ACWP (AC)
What is the total job supposed to cost?	Budget at Completion	BAC
What is the expected cost of the remaining work?	Estimate to Complete	ETC
What is the expected cost of the total job?	Estimate at Completion=AC+ETC	EAC
What is the calculated expected cost of the total job?	Independent Estimate to Complete=ACWP+((BAC-BCWP)/CPI*SPI)	IEAC

Terminology

Question	Answer	Acronym
What is the ratio of work performed to the actual cost of that work?	Cost Performance Index=BCWP/ACWP	CPI
What is the ratio of work performed to the work planned ?	Schedule Performance Index-BCWP/BCWS	SPI
What is the future cost performance index required to meet the planned budget ?	To Complete Performance Index(BAC)=(BAC-BCWP)/(BAC-ACWP)	TCPI(BAC)
What is the future cost performance index required to meet the estimated out-turn costs ?	To Complete Performance Index(EAC)=(BAC-BCWP)/(EAC-ACWP)	TCPI(EAC)
How do we know whether we are under or over our planned cost for work performed ?	Cost Variance=BCWP-ACWP	CV
How do we know whether we are ahead or behind our planned schedule ?	Schedule Variance=BCWP-BCWS	SV
How much will I over/under run against the budget?	Variance at Completion	VAC

Two superb trends

SPI is the ratio of work performed (BCWP) to work scheduled (BCWS)

SPI = BCWP/BCWS (EV/PV)

If SPI = 1.0 (the project is on track)

If SPI > 1.0 (the project is ahead of schedule)

If SPI < 1.0 (the project is behind schedule)

CPI is the ratio of work performed (BCWP) to the cost of that work (ACWP)

CPI = BCWP/ACWP (EV/AC)

If CPI = 1.0 (the project has earned the same value as it has cost)

If CPI > 1.0 (the project is being performed for less cost than planned)

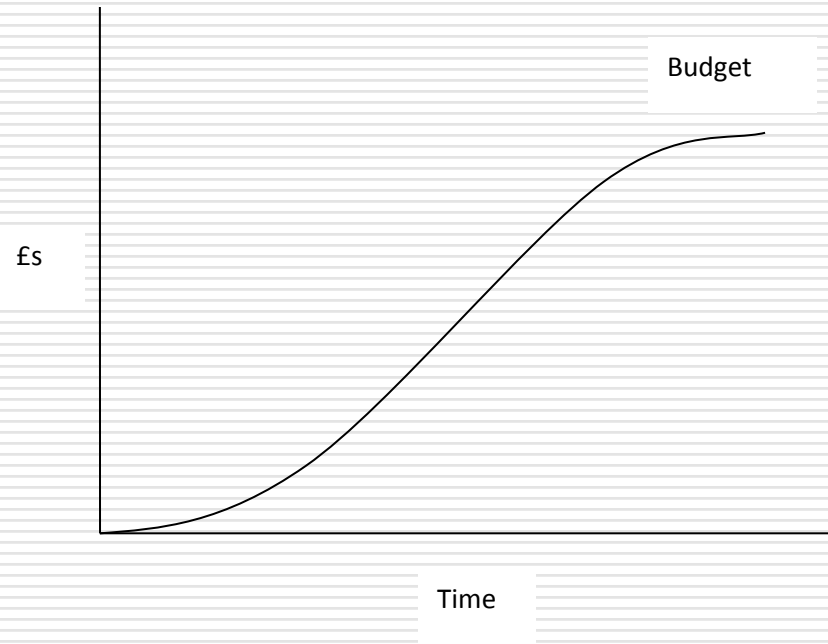
If CPI < 1.0 (the project is being performed for more cost than planned)

Integrating the two disciplines - APM

- Risk Management and Earned Value integrate at various points
 - Establishing the Baseline
 - Through out the lifecycle

Integrating the two disciplines – Establishing the Baseline

- How is the budget to deliver the project scope made up?



Integrating the two disciplines – Establishing the Baseline

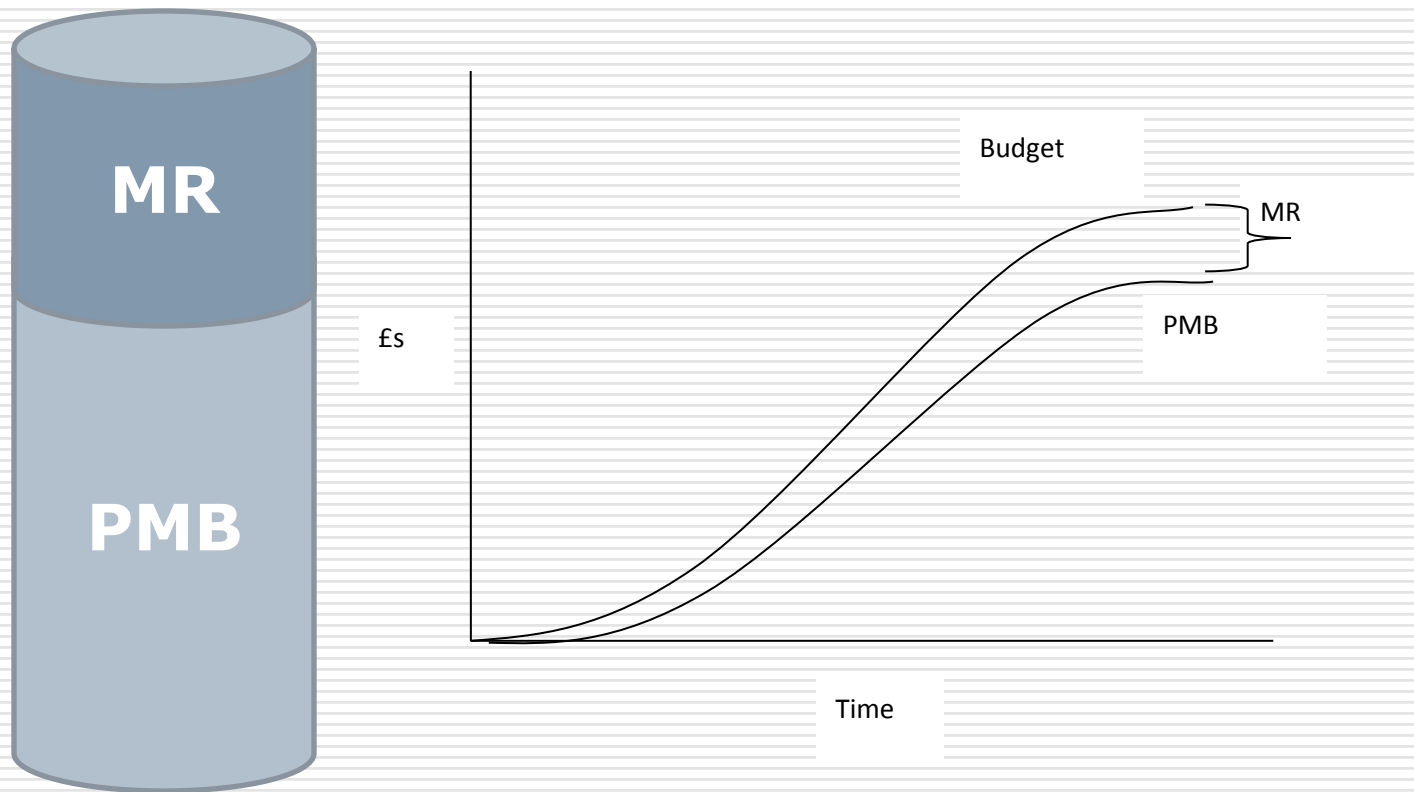
- But what is it made up of?



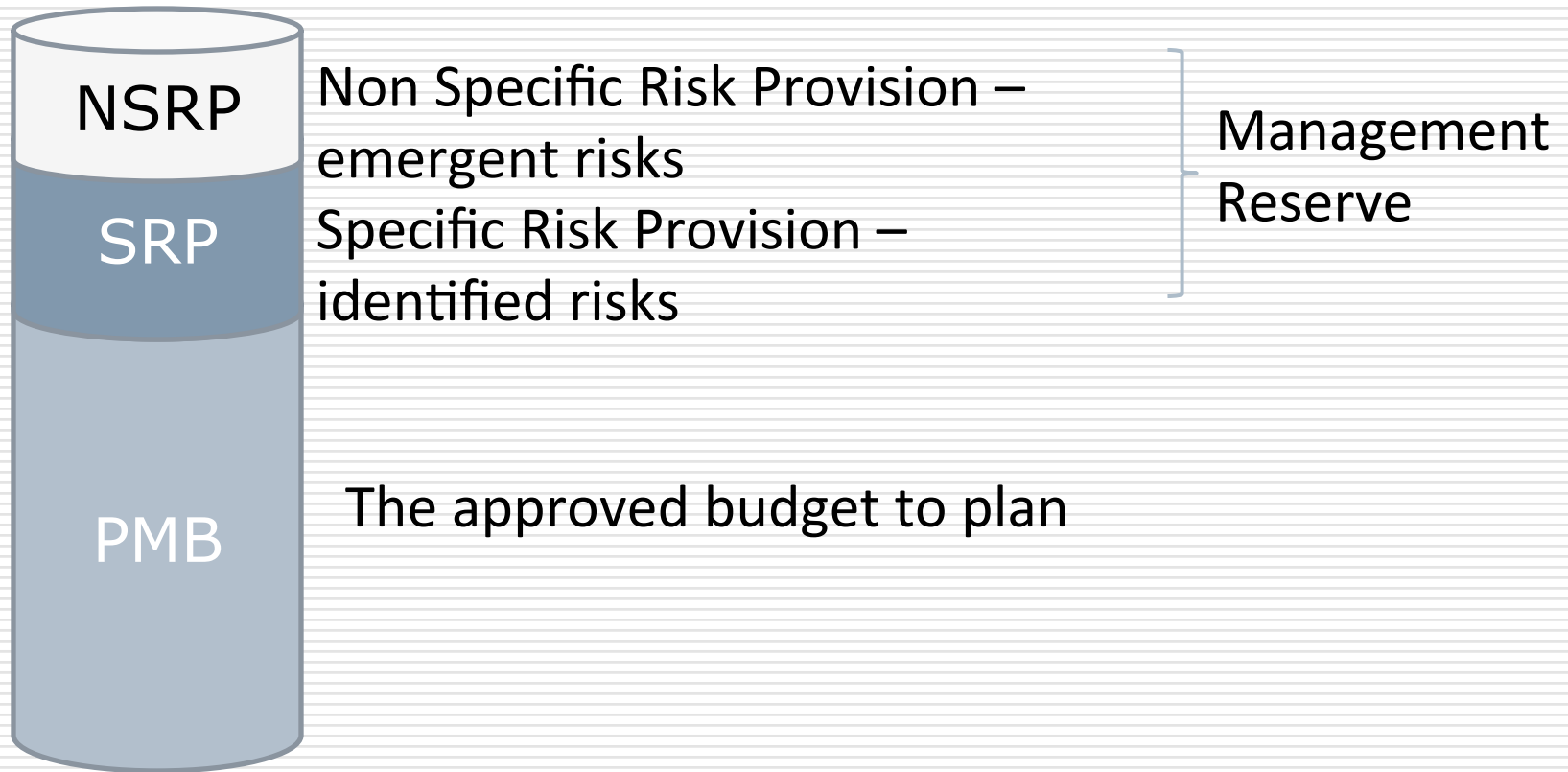
Management Reserve is the provision for identified and emergent risks

PMB is the approved plan that the project will be measured against

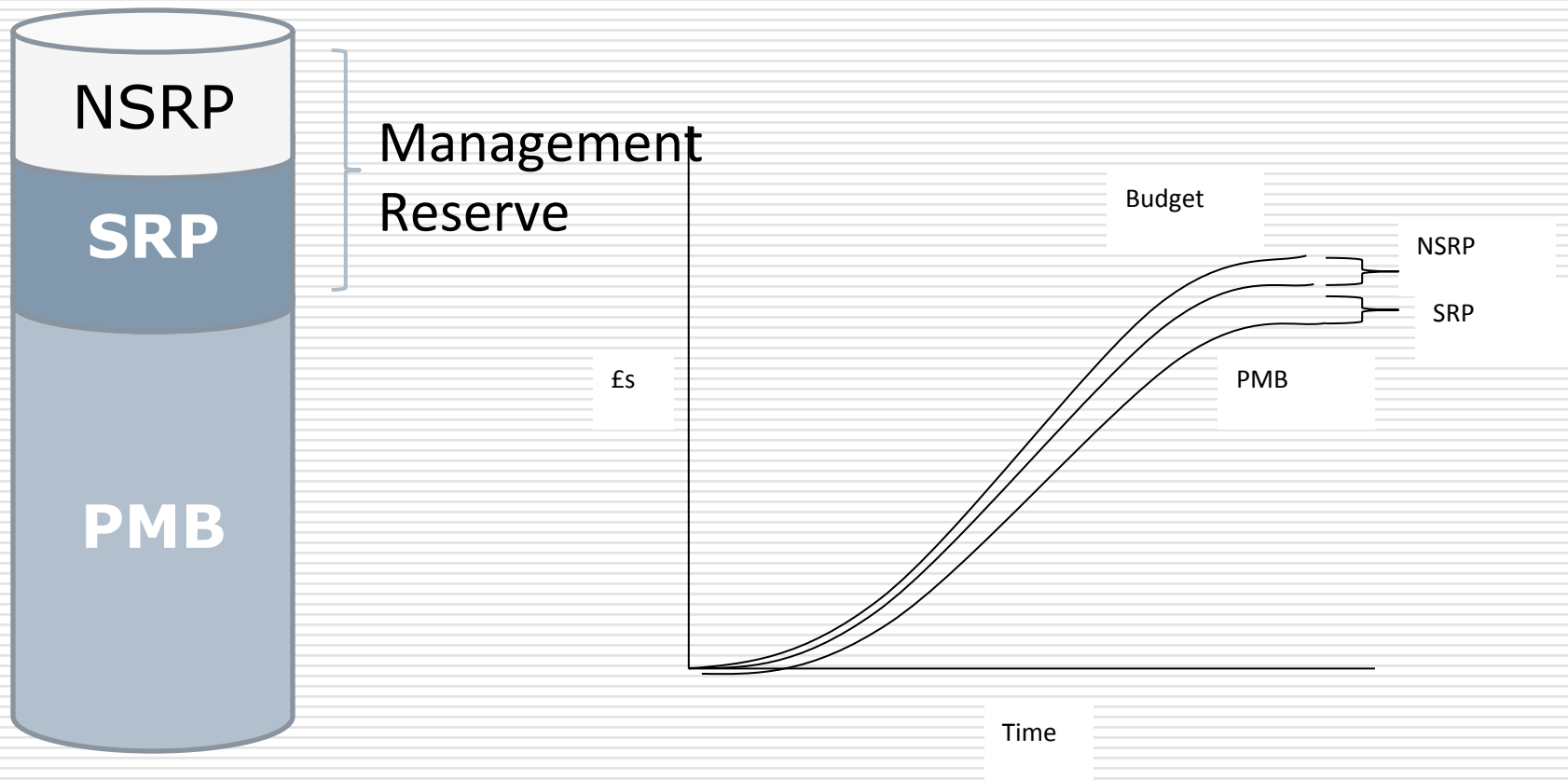
Integrating the two disciplines – Establishing the Baseline



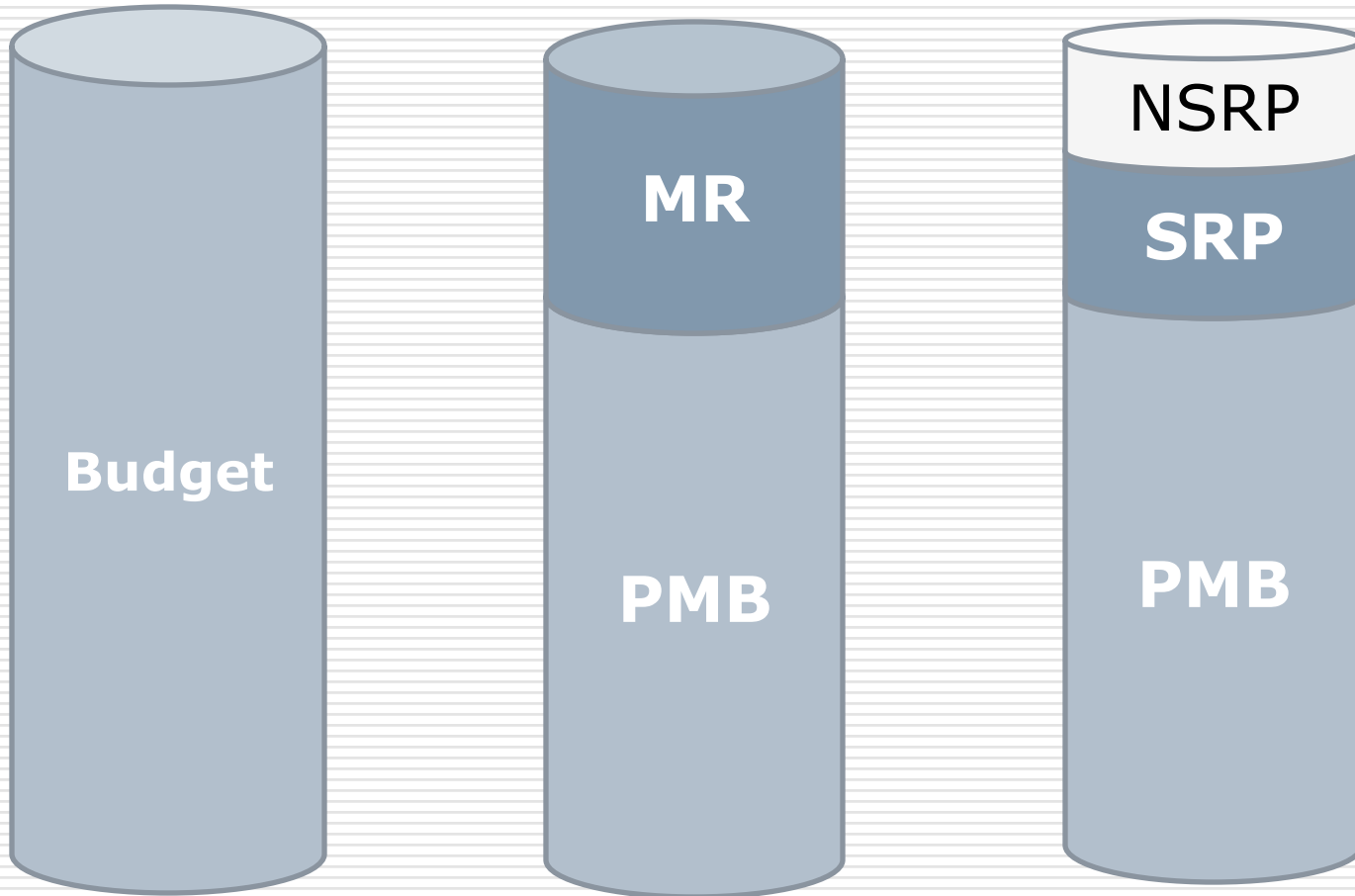
Management Reserve



Management Reserve



The Budget

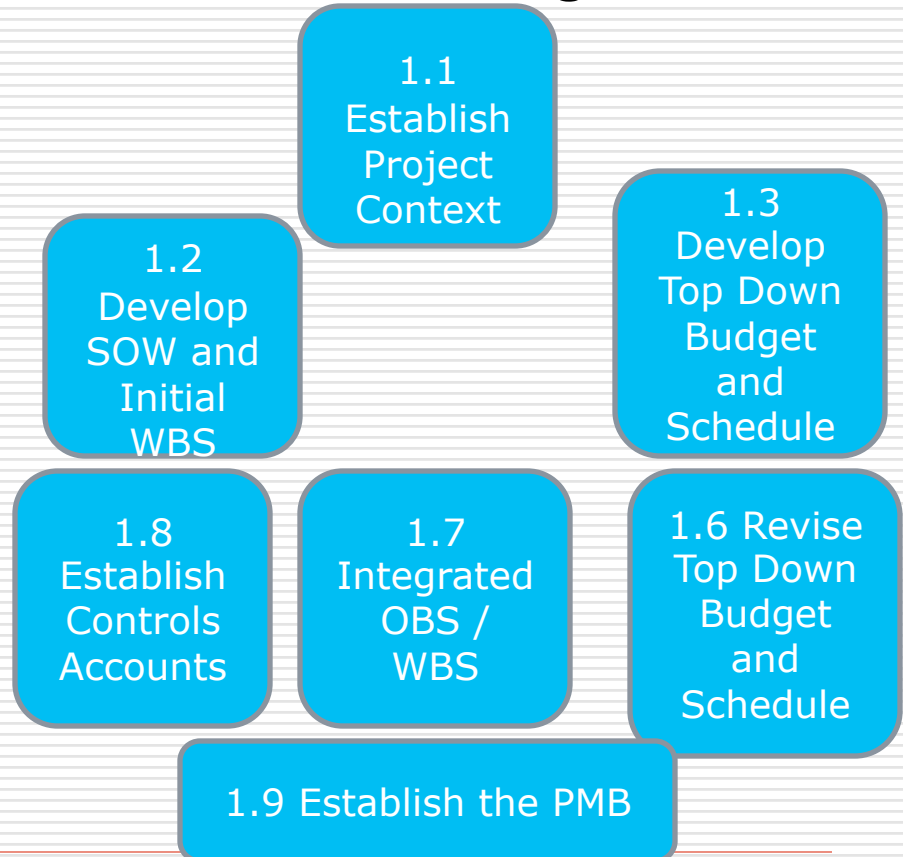


The Two Disciplines

Risk Management



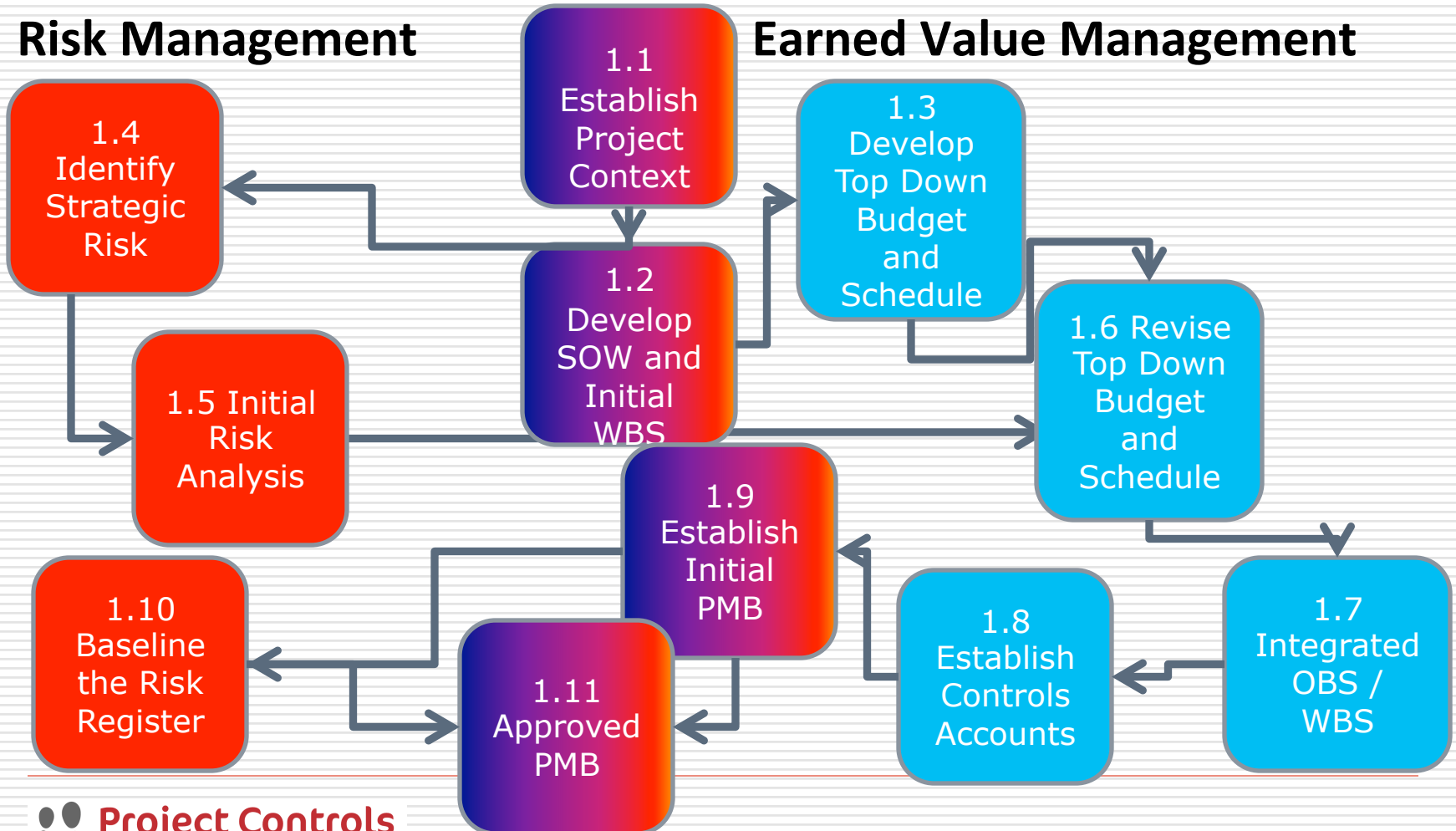
Earned Value Management



The Two Disciplines

Risk Management

Earned Value Management



Integrating the two disciplines - Risk Informs the Baseline

- So how does risk feed the baseline?
 - Risks have been reviewed
 - Actions approved and included in the baseline
- Risk Analysis is undertaken to inform the baseline
 - Agreed level of confidence in the PMB

Integrating the two disciplines - Risk Informs Management Reserve

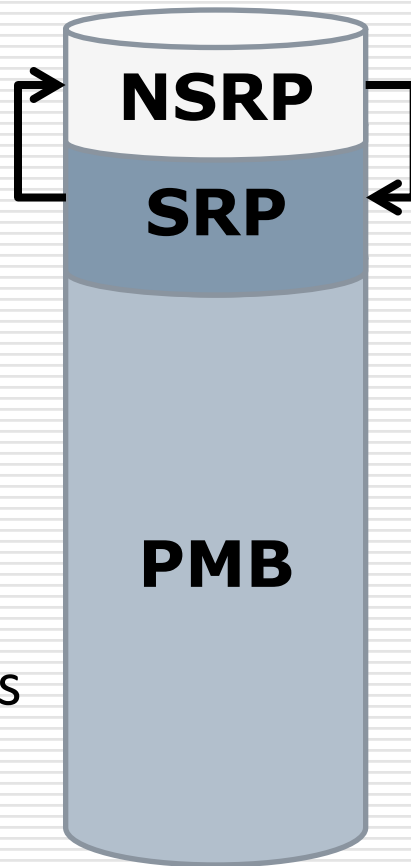
- Specific Risk Provision
 - Determined by carrying out simulation on the risks identified in the register
 - Also enables you to understand the risk exposure
- Non Specific Risk Provision
 - Use previous projects
 - Previous experience
 - Use the risk exposure to give you a view

What does Management Reserve mean to you?



Through the project lifecycle – Risks

- Risk Closed / Revised
(threat and opportunity)
 - Greater knowledge
 - Actions successfully carried out
 - Project milestones achieved
 - Plan updated

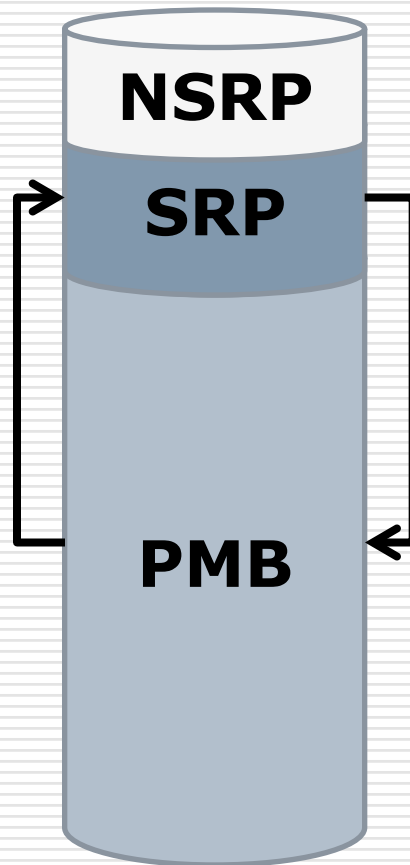


- New Risk Identified / Existing risks reviews
(threat and opportunity)
 - Greater knowledge
 - Actions unsuccessfully carried out
 - Change to scope
 - Plan updated

Through the project lifecycle - PMB

□ Approved Transfer from PMB

- Action no longer valid
- Risk is closed / exploited

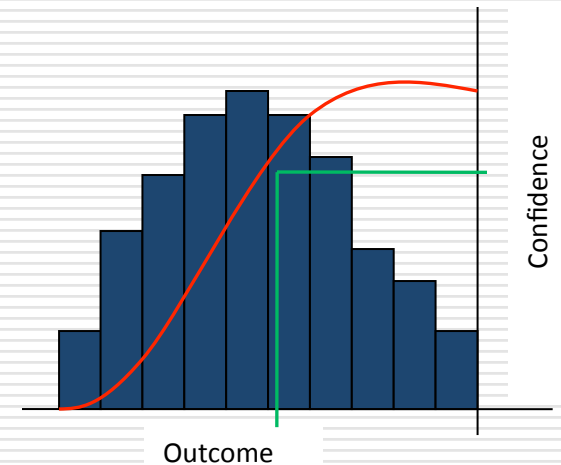
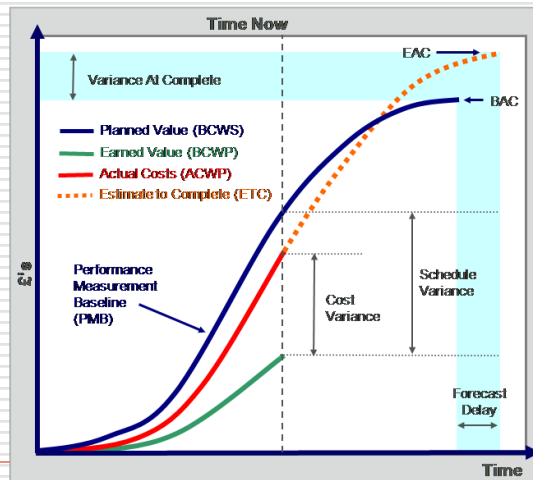
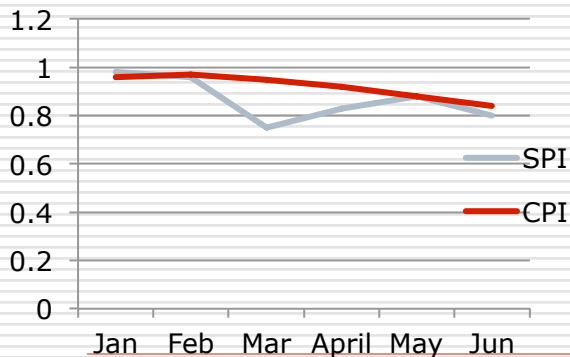


□ Approved Transfer in to the PMB

- Action identified and planned
- Risk recovery

Reporting and Decision Making

- Outputs should aid Management Decision
 - Risk Analysis outputs – likely outturn or project in terms of cost and schedule
 - Earned Value
 - SPI and CPI trends
 - EACs



Why bother?

- Increasing complexity
 - Regulation and government oversight
 - Information management
 - Speed of innovation
 - The variability of complexity
 - Complexity creates opportunities: Gaining competitive advantages, Creating new and better strategies, Expanding into new markets, and making their organisation more efficient
- Increasing complexity: Out of control, difficult to identify and analyse risks
- Get control through effective risk and earned value management and their interfaces – attempt to get the best objective data

Your working environment

- What type of projects/programmes do you work on?
 - Major complex programmes duration > 5 years – multiple/difficult stakeholders
 - Projects/Programmes duration >1 year to 5 years – number of stakeholders
 - Projects with average duration of a year – not many stakeholders
 - Multiple short term projects e.g. 3 months duration



What do you think are the reasons for not implementing EVM?

- On your table please discuss and agree reasons for NOT implementing Earned Value Management. Prepare to feedback at least 6



Common reasons for not implementing EVM

- Special IT tools and specialist skills are required – **EVM is no exception**
- The programme is too big or too small and so EVM is meaningless (accruals) – **Scale it**
- We can't afford to invest in EVM – **Increases the odds of success though!**
- Baseline cannot be established – **Creates a focus for establishing a robust schedule**
- There is too much uncertainty in the project(s) – **Understand the risks and performance**
- There are too many changes occurring – **Increases the risk - requires more control**
- Makes reporting overly bureaucratic – **Make reporting appropriate**
- EV doesn't take into account quality – **TRUE, but risk does!**
- We do enough planning already – **Doesn't require more planning**
- I don't really understand it – Senior Managers don't understand it – **Educate – 'Buy-In'**
- EVM will reveal too much about our inadequacies – **Enables them to be addressed!**
- Objectivity is inappropriate – **It is both objective and subjective – ETC (includes CAM estimate)**

Some EVM Tools

- ❑ **Scheduling Tools:**
 - Microsoft Project/Project Server, Primavera P6, Deltek Open Plan, Safran, Artemis
- ❑ **EVM Cost Engines:**
 - EVMS for Project, Deltek Cobra, Primavera Cost Manager, Deltek MPM, ARES PRISM, DecisionEdge
- ❑ **EVMS Reporting Engines:**
 - Deltek wlnsight, DecisionEdge
- ❑ **Combine EVM Tools**
 - Unanet, Safran, Dekker Trakker
- ❑ **Additional Integration Tools**
 - forProject, Microsoft Project
- ❑ **Earned Value Tools:** Deltek Cobra, Deltek MPM, Primavera Cost Manager
- ❑ **EV Reporting Tools:** Deltek wlnisght, Microsoft Excel
- ❑ **Account/ERP Tools:** Oracle Applications, Deltek Costpoint, Deltek GCS Premier, SAP, Peoplesoft, JD Edwards

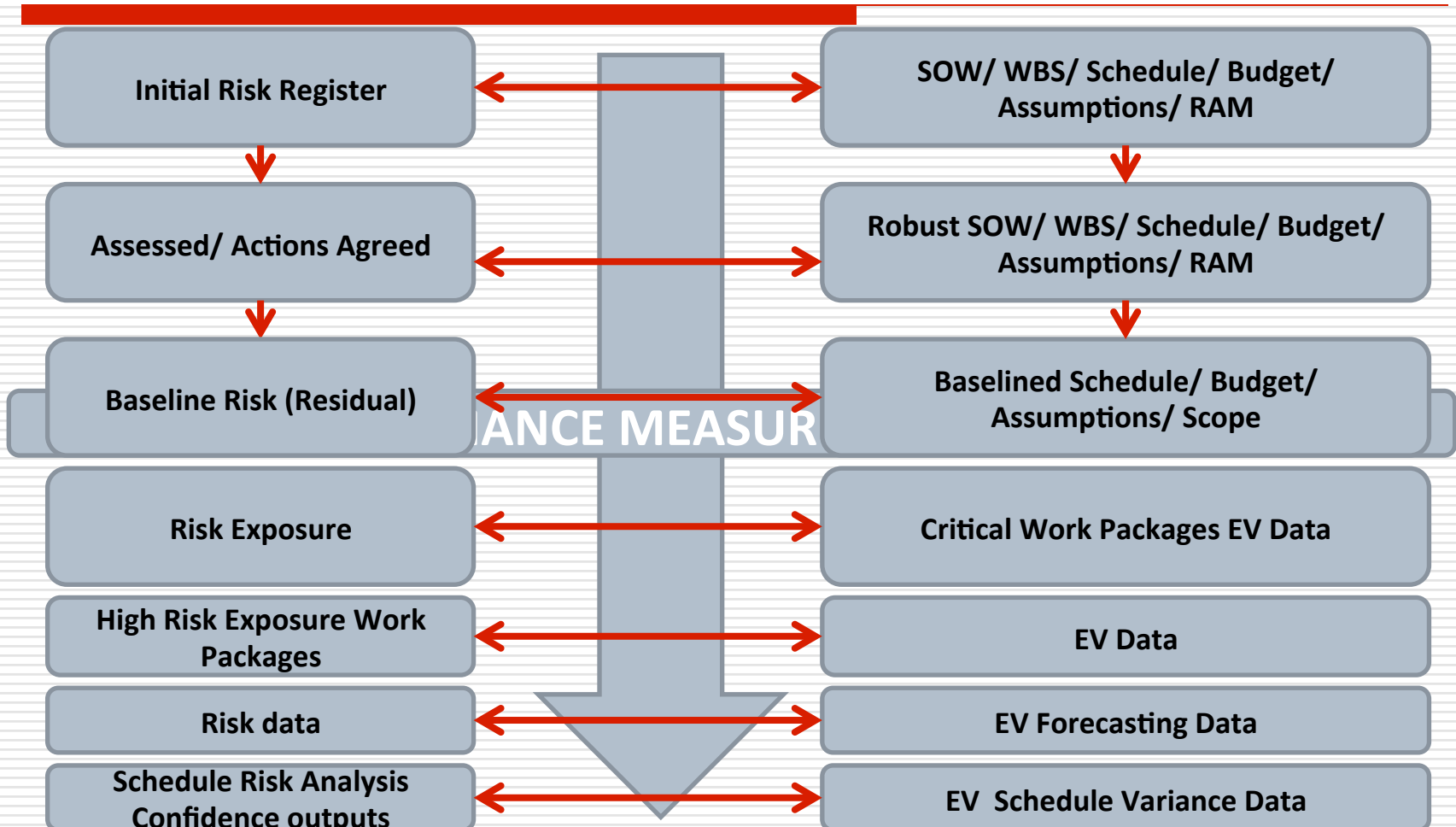
Hints and Tips for Implementing Earned Value Management (EVM)

- ❑ Be not afraid of EVM – it is an approach that can be scaled to your project's specific needs.
- ❑ There is an unwarranted belief that EVM is difficult and burdensome, but if you are controlling your projects you should already have in place all of the components that are needed for EVM.
- ❑ Give the structures the appropriate attention at the start – WBS, OBS and RAM. Single-point accountability is required for complete work packages.
- ❑ Avoid too much clutter in the schedule (e.g. don't put in tasks for holidays, working groups, etc just because you budget for them!).
- ❑ Ensure that the techniques for collecting progress (% complete) are appropriate and consistent. If the techniques are wrong you won't have accurate performance information.

Hints and Tips for Implementing EVM cont

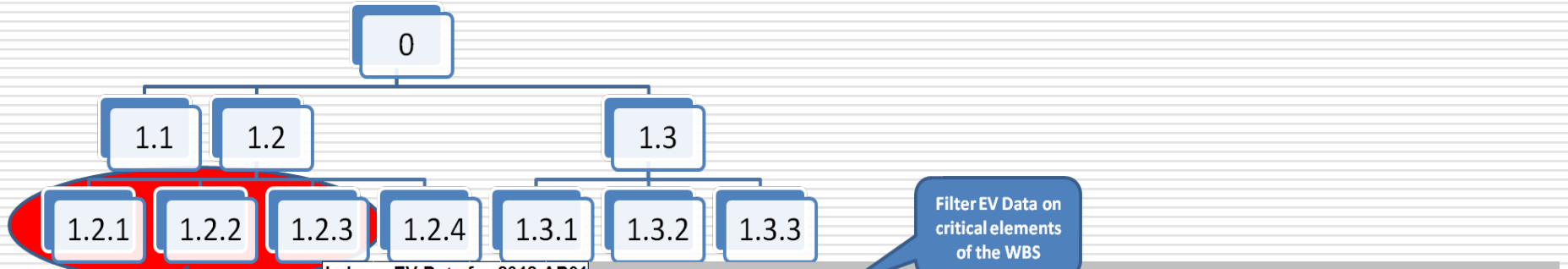
- ❑ Be clear and consistent about the level at which EVM data is being collected.
- ❑ Keep in mind that the whole point of these disciplines is to aid decision-making. You should establish the correct reporting & review hierarchy (which will typically drive decision making to the lowest practical level); without this governance, these disciplines won't drive change.
- ❑ Make sure the people delivering the plan also buy into and 'own' the plan.

PMB and beyond



Critical Path Focus

Critical Path Focus



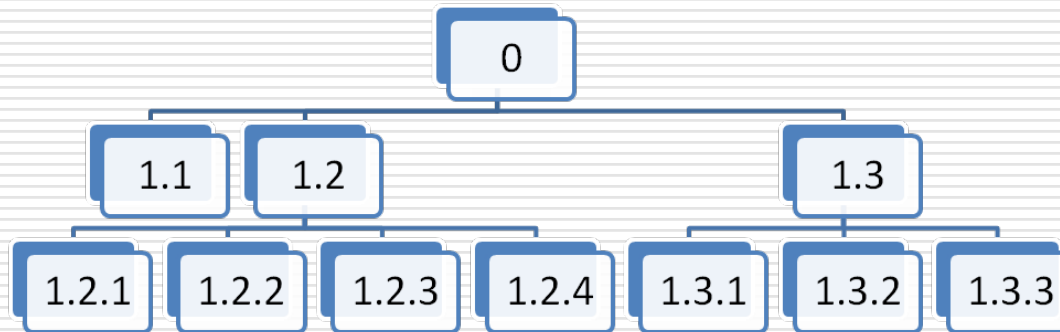
Labour EV Data for 2012-AP01

P6 WBS	Name	Level	Accounting Period								Cumulative to Date								Budget				
			BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BCWS	BCWP	ACWP	SV	CV	SPI	SPI RAG	CPI	CPI RAG	SV%	CV%	Commitment	BAC	ETC
A486.1	Build House	1	10,400	9,400	11,405	-1,000	-2,005	0.90	0.82	27,050	26,050	27,050	-1,000	-1,000	0.96	0.96	100.00%	100.00%	0	120,000	93,950	121,000	1,000
A486.1.1	Build Foundations	2	6,000	5,000	7,000	-1,000	-2,000	0.83	0.71	20,000	19,000	20,000	-1,000	-1,000	0.95	0.95	100.00%	100.00%	0	20,000	1,000	21,000	1,000
A486.1.2	Build 1st Floor	2	4,000	4,000	4,000	0	0	1.00	1.00	6,000	6,000	6,000	0	0	1.00	1.00	0.00%	0.00%	0	20,000	14,000	20,000	0
A486.1.3	Build 2nd Floor	2	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00%	0.00%	0	20,000	20,000	20,000	0
A486.1.4	Build Roof	2	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00%	0.00%	0	30,000	30,000	30,000	0
A486.1.5	Fit Windows	2	150	150	155	0	-5	1.00	0.97	300	300	300	0	0	1.00	1.00	0.00%	0.00%	0	3,000	2,700	3,000	0
A486.1.6	Fit Doors	2	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00%	0.00%	0	2,000	2,000	2,000	0
A486.1.7	Fit Kitchen	2	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00%	0.00%	0	10,000	10,000	10,000	0
A486.1.8	Fit Bathroom	2	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00%	0.00%	0	10,000	10,000	10,000	0
A486.1.9	Fit Flooring	2	250	250	250	0	0	1.00	1.00	750	750	750	0	0	1.00	1.00	0.00%	0.00%	0	5,000	4,250	5,000	0
A486.2	Support	1	700	700	700	0	0	1.00	1.00	2,100	2,100	2,100	0	0	1.00	1.00	0.00%	0.00%	0	7,000	4,900	7,000	0
A486.2.1	Risk Management	2	200	200	200	0	0	1.00	1.00	600	600	600	0	0	1.00	1.00	0.00%	0.00%	0	2,000	1,400	2,000	0
A486.2.2	Architect	2	500	500	500	0	0	1.00	1.00	1,500	1,500	1,500	0	0	1.00	1.00	0.00%	0.00%	0	5,000	3,500	5,000	0
Totals						-1,000	-2,005	0.91	0.83	29,150	28,150	29,150	-1,000	-1,000	0.97	0.97			0	127,000	98,850	128,000	1,000

Which risks impact these critical work packages? What is the exposure? How will this effect the potential delivery? Has it been considered as part of the ETC estimate? Consider sub-critical paths.

High Risk Exposure Focus

High Risk Focus



For those work packages with the highest risk exposure, track EV Data and compare with the current risk exposure (including its % of the whole)

Cumulative to date										
BCWS	BCWP	ACWP	SV	CV	SPI	SPI RAG	CPI	CPI RAG	SV%	CV%
49,700	49,200	49,700	-500	-500	0.99	Green	0.99	Green	50.00%	20.00%
35,000	34,000	35,000	-1,000	-1,000	0.97	Green	0.97	Green	100.00%	-40.00%
10,500	11,600	10,500	500	500	1.05	Red	1.05	Red	-50.00%	-20.00%
0	0	0	0	0	0.00	Red	0.00	Red	0.00%	0.00%
0	0	0	0	0	0.00	Red	0.00	Red	0.00%	0.00%
1,200	1,200	1,200	0	0	1.00	Green	1.00	Green	0.00%	0.00%
0	0	0	0	0	0.00	Red	0.00	Red	0.00%	0.00%
0	0	0	0	0	0.00	Red	0.00	Red	0.00%	0.00%
0	0	0	0	0	0.00	Red	0.00	Red	0.00%	0.00%
3,000	3,000	3,000	0	0	1.00	Green	1.00	Green	0.00%	0.00%
2,100	2,100	2,100	0	0	1.00	Green	1.00	Green	0.00%	0.00%
600	600	600	0	0	1.00	Green	1.00	Green	0.00%	0.00%
1,500	1,500	1,500	0	0	1.00	Green	1.00	Green	0.00%	0.00%
51,800	51,300	51,800	-500	-500	0.99	Green	0.99	Green	0.00%	0.00%

Against which work packages is the risk exposure increasing_decreasing? Does this align with the SPI and CPI trends? If not why not?

Risk Vs EV Forecast Data

Risk Vs EV Forecasting Data

Budget				
0	BAC	ETC	EAC	VAR
0	222,000	172,800	222,500	500
0	35,000	1,000	35,000	1,000
0	35,000	24,000	34,500	-500
0	35,000	35,000	35,000	0
0	50,000	50,000	50,000	0
0	12,000	10,800	12,000	0
0	7,000	7,000	7,000	0
0	15,000	15,000	15,000	0
0	13,000	13,000	13,000	0
0	20,000	17,000	20,000	0
0	7,000	4,900	7,000	0
0	2,000	1,400	2,000	0
0	5,000	3,500	5,000	0
0	229,000	355,400	459,000	1,000

How does the risk exposure compare with the EAC and IEAC? Which work packages show divergence? Why?

For every work package compare the Forecasting EV Data with risk exposure data

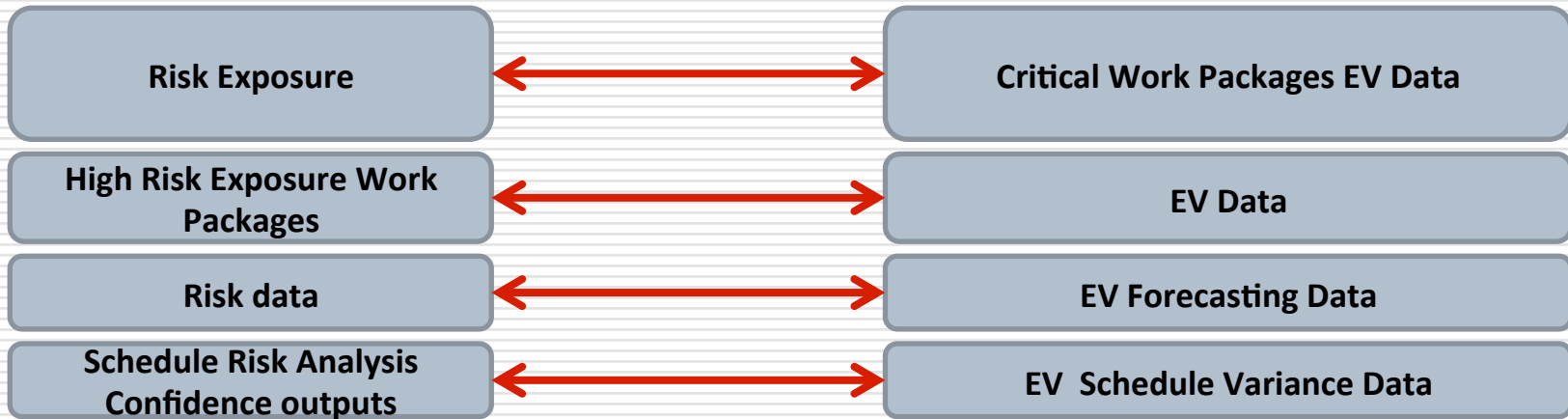
Schedule Risk Analysis Data Vs EV Variance Data

Labour EV Data for 2012-AP01																								
P6 WBS	Name	Level	Accounting Period						Cumulative to Date										Budget					
			BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BCWS	BCWP	ACWP	SV	CV	SPI	SPI RAG	CPI	CPI RAG	SV%	CV%	Commitment	BAC	ETC	IEAC
A486.1	Build House	1	10,400	9,400	11,405	-1,000	-2,005	0.90	0.82	27,050	26,050	27,050	-1,000	-1,000	0.96	0.96	0.96	100.00%	100.00%	0	120,000	93,950	121,000	1,000
A486.1.1	Build Foundations	2	6,000	5,000	7,000	-1,000	-2,000	0.83	0.71	20,000	19,000	20,000	-1,000	-1,000	0.95	0.95	0.95	100.00%	100.00%	0	20,000	1,000	21,000	1,000
A486.1.2	Build 1st Floor	2	4,000	4,000	4,000	0	0	1.00	1.00	6,000	6,000	6,000	0	0	1.00	1.00	1.00	0.00%	0.00%	0	20,000	14,000	20,000	0
A486.1.3	Build 2nd Floor	2	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00%	0.00%	0	20,000	20,000	20,000	0
A486.1.4	Build Roof	2	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00%	0.00%	0	30,000	30,000	30,000	0
A486.1.5	Fit Windows	2	150	150	155	0	-5	1.00	0.97	300	300	300	0	0	1.00	1.00	1.00	0.00%	0.00%	0	3,000	2,700	3,000	0
A486.1.6	Fit Doors	2	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00%	0.00%	0	2,000	2,000	2,000	0
A486.1.7	Fit Kitchen	2	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00%	0.00%	0	10,000	10,000	10,000	0
A486.1.8	Fit Bathroom	2	0	0	0	0	0	0.00	0.00	0	0	0	0	0	0.00	0.00	0.00	0.00%	0.00%	0	10,000	10,000	10,000	0
A486.1.9	Fit Flooring	2	250	250	250	0	0	1.00	1.00	750	750	750	0	0	1.00	1.00	1.00	0.00%	0.00%	0	5,000	4,250	5,000	0
A486.2	Support	1	700	700	700	0	0	1.00	1.00	2,100	2,100	2,100	0	0	1.00	1.00	1.00	0.00%	0.00%	0	7,000	4,900	7,000	0
A486.2.1	Risk Management	2	200	200	200	0	0	1.00	1.00	600	600	600	0	0	1.00	1.00	1.00	0.00%	0.00%	0	2,000	1,400	2,000	0
A486.2.2	Architect	2	500	500	500	0	0	1.00	1.00	1,500	1,500	1,500	0	0	1.00	1.00	1.00	0.00%	0.00%	0	5,000	3,500	5,000	0
Totals			11,100	10,100	12,105	-1,000	-2,005	0.91	0.83	29,150	28,150	29,150	-1,000	-1,000	0.97	0.97	0.97			0	127,000	98,850	128,000	0

Does the risk 10/50/90 indicate difficulties and does this align with the SPI? How does the EAC and IEAC trend in comparison with the 10/50/90?

Compare the risk quantitative 10/50/90 outputs with the EV Variance data

PMB and beyond



Can you identify any other touch points?



Hints and Tips For Interfacing Risk and EVM

- ❑ EVM and/ or Risk Management (RM) do not exist in isolation – the diligent Project Manager uses all the tools and techniques to reveal the whole picture.
- ❑ Deliver the outputs from EVM, RM and their interfaces using language appropriate to the audience otherwise the message may get lost.
- ❑ Train the team (CAMs, planners, management team, etc) to improve ownership and buy-in of all the inputs and outputs of EVM and RM
- ❑ Consider all risk mitigation actions prior to the establishment of the Performance Measurement Baseline

Summary

- ❑ Risk Management should inform the PMB
- ❑ Well understood PMB is essential
 - What is in and not in the PMB
- ❑ Risk and Earned Value Data can be used to understand and improve trends, forecasts etc.
- ❑ Integrated Risk and EV reporting aids a better understanding of current status and forecasts/ trends
- ❑ Information from integrated Risk and EV help inform management decisions
- ❑ The culture must be right!

Your opinion counts!

- Do you think that interfacing risk and earned value management is beneficial?
 - **Use all the given data and compare results and statistics**
 - **Embed risk in the PMB as discussed- not sure of the benefits through life**
 - **Only in understanding what risks could impact the PMB**
 - **Not at all**



Questions





“Where will our knowledge take you?”

THANK YOU

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