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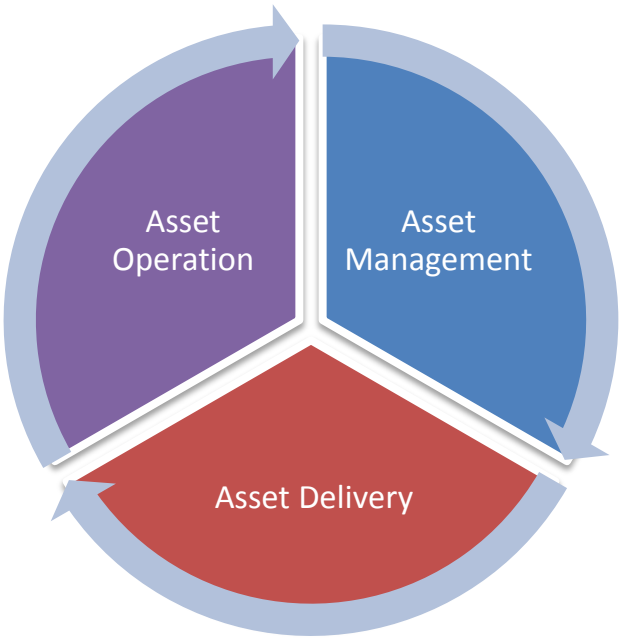
[BASELINE APPROACH TO REGULATED PROGRAMMES]

Regulated businesses are structured in a specific manner to report to a Government body, in many cases reporting requirements are on an annual basis, which does not fit well with a Project Lifecycle. When developing an overarching baseline strategy these types of programmes have specific needs which must be accommodated in the process design.

1 BASELINE STRATEGY APPROACH TO REGULATED PROGRAMMES

1.1 Approach to Baselining

A Regulatory Programme due to the nature of the framework can be expected to fluid over their multi-year life with baseloads of multiple projects being added and specific projects being removed.



The overall reporting to the regulator is usually by the Asset Management part of the business whist the Delivery is covered by the Asset Delivery part of the business and its supply chain of consultants / Delivery framework contractors

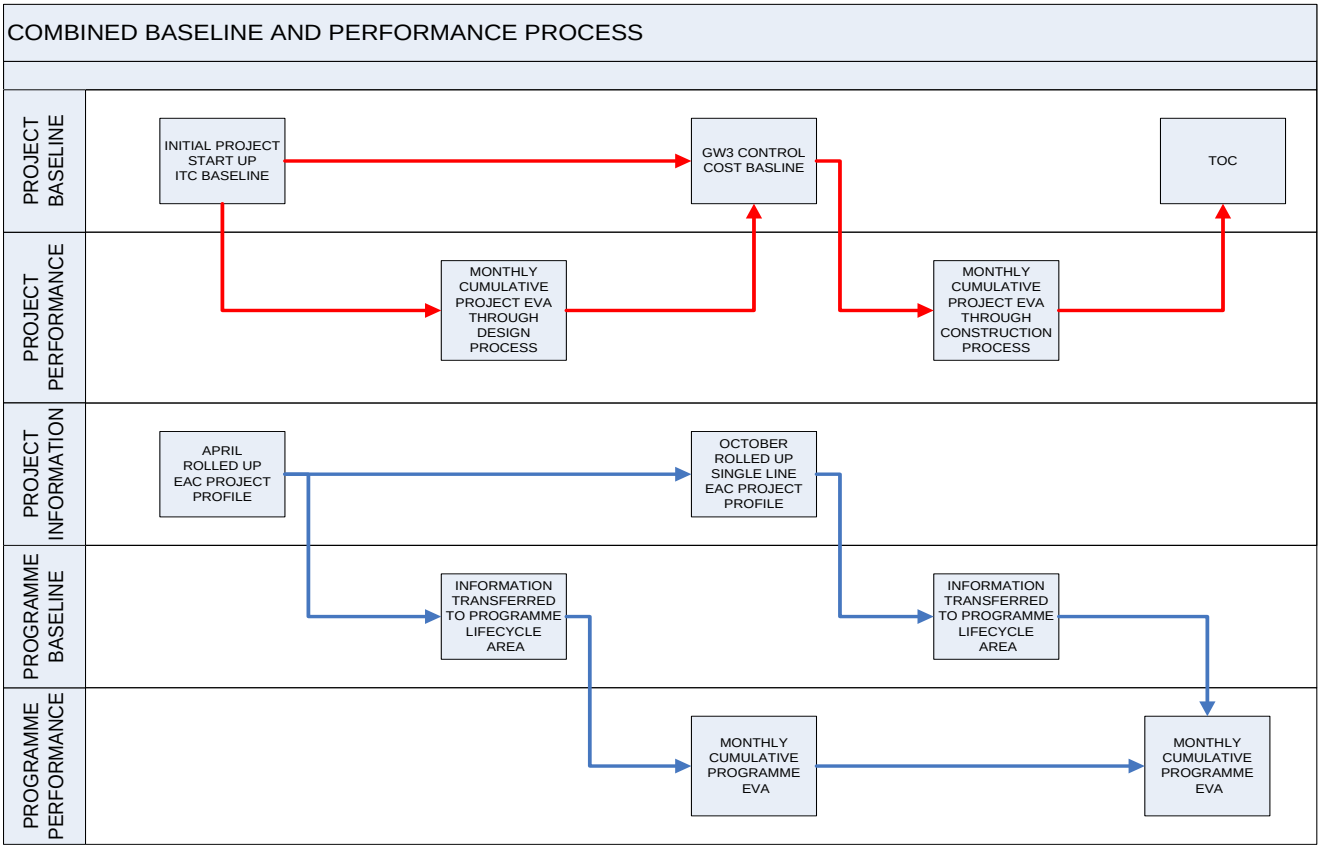
This makes it both difficult for both the Asset Management who manage the regulatory interface and Asset Delivery who manage the Delivery Frameworks to effectively monitor performance at both Project and Programme level.

To accommodate both at programme and project there needs to be an overarching strategy and approach to both project and programme baselining.

One baselining methodology that can be used is to split the work into two distinct segments allowing for analysis at programme and project level satisfying the different type's business drivers.

The two differing principles are to monitor at programme on an annual basis and at project level at two specific control points. This is especially relevant on Government regulatory work.

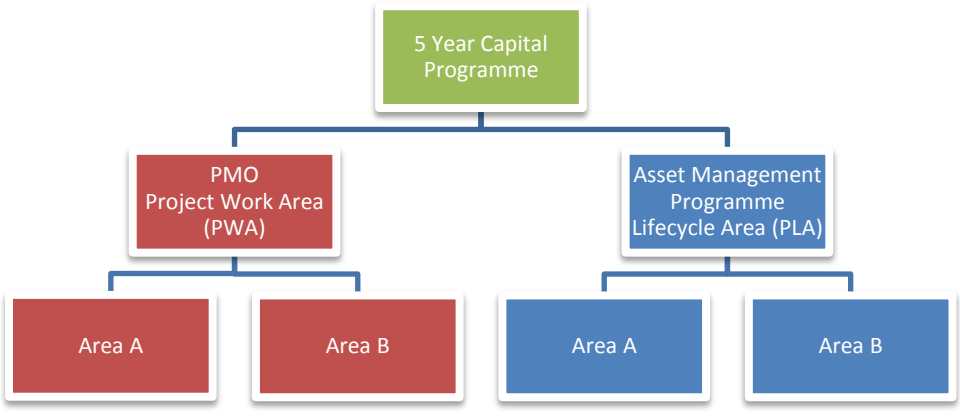
There is distinct separation between the processes, which will result in differing performance measurement processes.



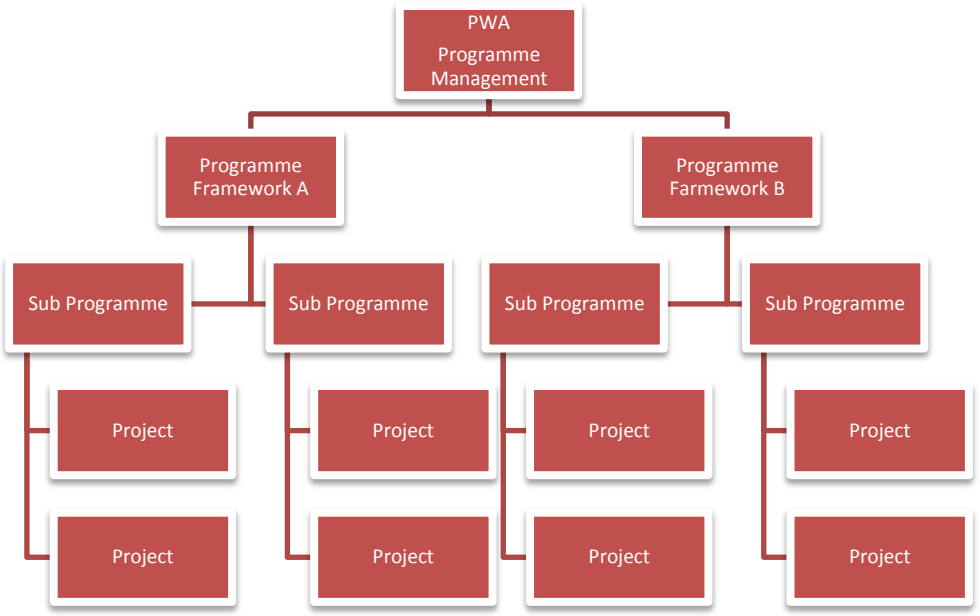
2 PROGRAMME MANAGEMENT PROJECT BASELINE STRATEGY

2.1 Project Work Area (PWA)

The Enterprise structure in the programme management system will be broken down initially into two segments, which will be used to monitor the delivery and performance of the capital programme



The first segment will be known as the Project work area (PWA). This is the live programme area will be variable, representing at all times the current workload within the Asset Delivery. The projects in this area will be fully detailed and will be used for the day-to-day management of the portfolio of work. In this area, the portfolio will measure project performance.



2.2 Project Baseline and Snapshot Types (PWA)

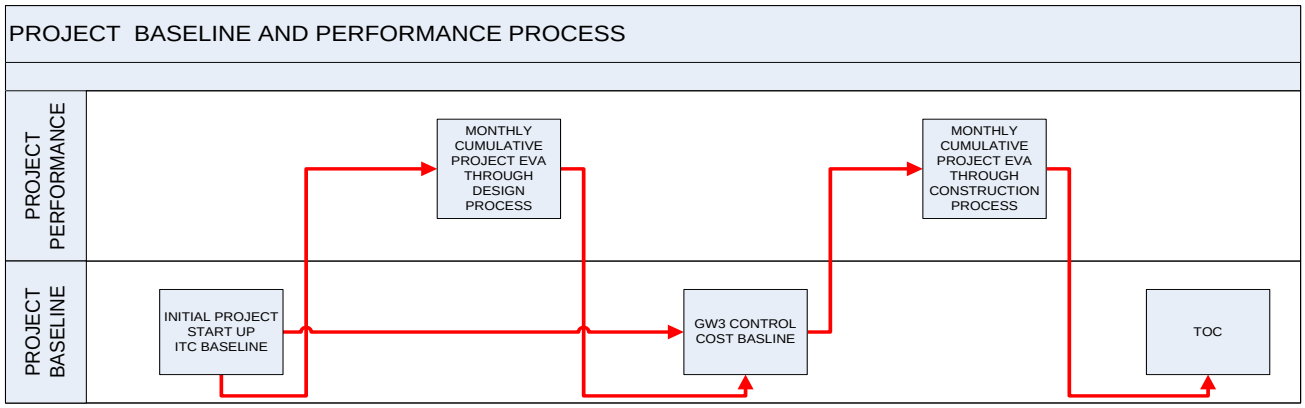
A baseline is a snapshot in time of what we expect to achieve, and what we need to do to meet that delivery in terms of material quantities, resources and expenditure. It forms a point of reference to check how actual progress compares to early predictions.

For the capital programme, around seven baseline and snap shot types could be expected to be used:-

Baseline Type	Type	Description
Intial Baseline	Snapshot	The baseline taken when the initial individual project schedule was built using historic norms etc.
ITC Baseline	Baseline	The agreed Initial Target baseline at the start of the project with Asset Management. All progress to Asset Management team is monitored against this.
GW3	Baseline	In most Programmes of this nature the Gateway 3 [GW3] is taken at the point where the control cost is placed in the schedule and the construction part of the schedule developed.
Authorised Change	Baseline	Agreed changes by Asset Management - reflects approved changes to the original plan. Becomes the Performance Baseline after approved changes are incorporated.

Monthly Status	Snapshot	A 'snapshot' record of project status following each monthly progress update. Saved for backup, tracking trends, and historical purposes.
What-If Plan	Snapshot	A copy of the project used to evaluate potential options for optimising project performance.

The Baseline Type 'ITC Baseline' is the baseline which is assigned to the project for performance measurement - this is known as the Performance Baseline. In software such as Primavera, this is referred to as the Project Baseline. Only one baseline can be assigned for performance measurement at a time. At GW3, a new performance baseline will be taken which will measure cost and schedule through the construction period.



2.3 Project Level Earned Value

The approach at Project level will follow usual best practice

Project Level BCWS (Planned Value) will be based on one of two baselines subject to the project status, pre GW3 it will be based on the ITC baseline. Post GW3 the baseline should change to the GW3 baseline, which then uses the control costs and construction activities for analysis.

Project percentage Complete will be derived from project level performance percentage complete

BCWP is the Baseline Project budget of either the ITC or GW3 Baseline* Performance percentage complete.

The ACWP, Actual Cost will be collected at WBS level within the project.

The role up Project EVA should only be used as an analysis of the current portfolio of work but not to be used as a measure against the controlled annual programme. This form of measure is described later in this document.

The information above will be collated in the Project Work Area (PWA) and certain information will be used in the Programme Lifecycle Area (PLA). The information will be used in two distinct processes.

The information for use and transfer at the end of March each year will be the March EAC which will form the PLA Initial Annual Baseline. The Project Actual and the current annual EAC Profile will be transferred on a monthly basis as well and used in the PLA to calculate the portfolio progress.

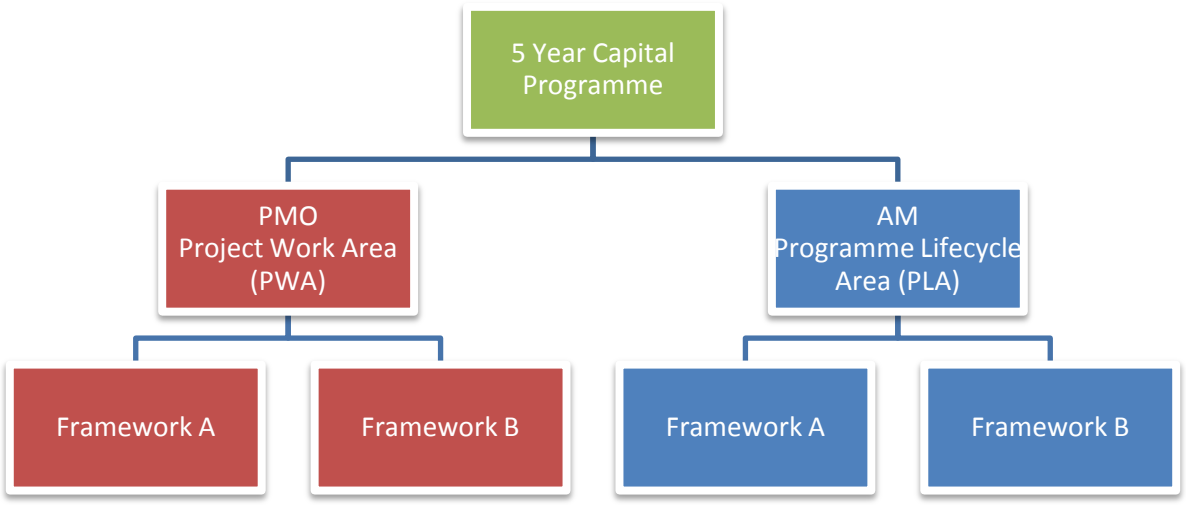
PROJECT LEVEL

PROJECT UPDATE TO END OF MAY	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Project BCWS	£ 2,000	£ 2,000										
Project Actual	£ 500											
March Project EAC	£ 500	£ 2,000	£ 2,000									
Current Data Date EAC	£ 500	£ 1,000	£ 2,000	£ 1,000								
Project BCWS	£ 1,000	£ 2,000	£ 2,000	£ 2,000								
Project Actual												
March Project EAC		£ 2,000	£ 2,000	£ 2,000	£ 1,000							
Current Data Date EAC		£ 2,000	£ 2,000	£ 1,000	£ 1,000	£ 1,000						
Project BCWS	£ 1,000	£ 1,000	£ 1,000									
Project Actual	£ 2,000	£ 2,000										
March Project EAC	£ 2,000	£ 1,000	£ 1,000									
Current Data Date EAC	£ 2,000	£ 2,000	£ 1,000	£ 1,000								

3 ASSET MANAGEMENT PROGRAMME BASELINE STRATEGY

3.1 Programme Lifecycle Area (PLA)

A separate EPS section in the PPM software should be created, and designated as the programme lifecycle area (PLA)

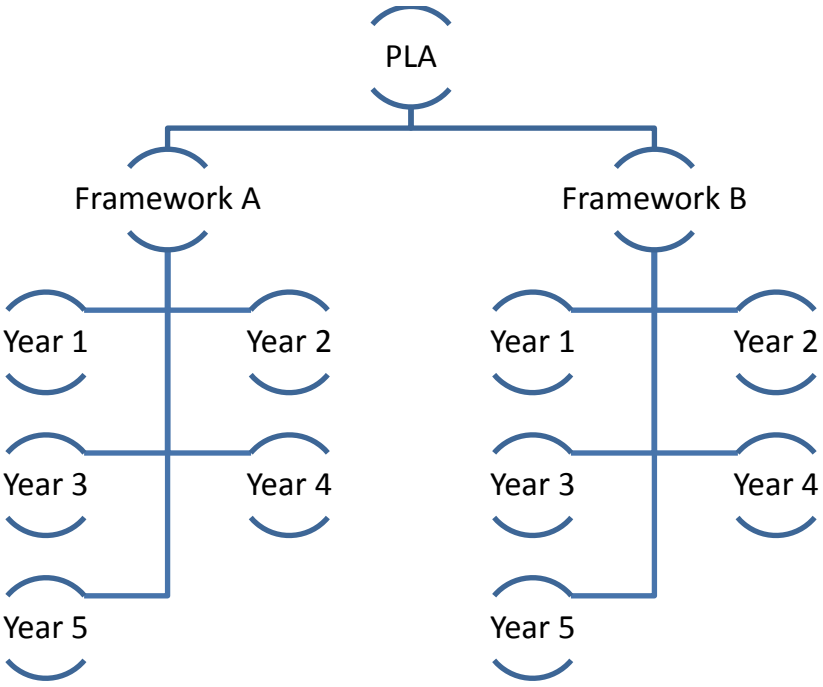


In this area the upper level schedules are to create a high-level annual baseline, which will be used to measure the programme performance for each year of the 5 year cycle.

Each PLA Project will be one year long based on a Financial Year April to April.

Single Line Project

The makeup of the project will be simple based on a single line with a financial profile for the year attached. This will be used as the measure for the overall performance including programme level EVA



As there is, possibility of fluctuation of programme scope due to projects moving in an out of the programme an additional baseline should be taken midyear.

Initial Annual Baseline (Provisional)	Annual Baseline (Fixed)
Year 1 April	Year 1 October
Year 2 April	Year 2 October
Year 3 April	Year 3 October
Year 4 April	Year 4 October
Year 5 April	Year 5 October

3.2 Programme Baseline Types (PLA)

For Asset Delivery , two baseline and snap shot types should be used:-

Baseline Type	Type	Description
Initial Annual Baseline	Baseline	This baseline is taken at the end of march/ start of April to monitor the new financial year
Annual Baseline	Baseline	This baseline is taken at the start of October and replaces the April baseline. This will then accommodate the changes incurred during the first half of the year

The methodology on how the programme level information will be collated as follows. Between January and March, each year the following year's programme value and profile will be agreed.

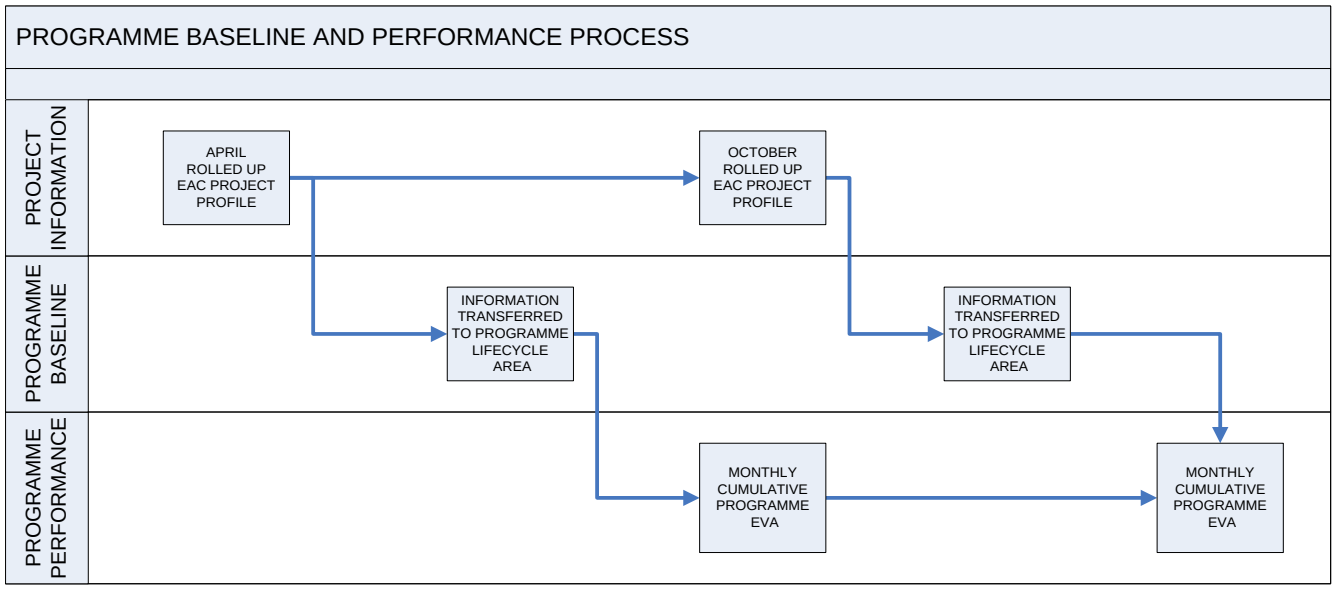
This will use the continuous baseload information released by the Asset Management and held by the Asset Delivery in the form of working projects.

By starting the process in January this will allow both Asset Management and Asset Delivery baseline a snapshot in time of what is expected to be achieved, and what is needed to meet that delivery in terms of material quantities, resources and expenditure. It forms a point of reference to check how actual progress compares to early predictions. It also enables the Asset Delivery part of the business to gain acceptance on increasing or decreasing the annual workload.

At The start of April, the agreed live profile for each project (not the project baseline) will be rolled up and copied from the Project Work Area to the Programme Life Cycle area as a single line. The single line will represent a commitment value that both parties will endeavour to achieve and it will be made up of the live projects plus allowances for new projects not yet identified.

The basket of projects which support that committed value could change but the measure will still be against the agreed profile.

It is expected that the projects within the regulatory programme will change with new ones being added and others being removed. To accommodate this an additional baseline should be taken in Mid-Year.



3.3 PLA Programme Level Earned Value

EVA at programme level is to be viewed differently and Asset Delivery should measure actual expenditure over planned expenditure

To understand this we need to constantly refer to the following:

DESCRIPTION	ACRONYM
Programme Lifecycle Area	(PLA)
Project Working Area	(PWA)
Planned Value	(BCWS)
Earned Value	(BCWP)
Estimate at Complete	(EAC)
Budget at Complete	(BAC)
Programme % Expenditure Complete	(PEC)

This will mean the baseline profile will be based on the profile used for the PLA BCWS on an initial basket of work at the April start of the financial year within the Project Work Area plus un-briefed work, new projects and potential expected work up to.agreed annual goal. This should be stored in the Programme life cycle area (PLA) of Primavera P6 or similar software.

Programme Level “PLA” BCWS (Planned Value) will be held on a single line annual summary project.

The percentage complete will be calculated from the current basket of work and based on Annual percentage Complete will be derived from “PWA” Cumulative Actual/ PWA Annual EAC. This means the % calculation is from the live but then can be compared against the baseline.

To calculate the programme level earned value the following formula would be applied. PWA Annual% Complete * PWA BAC = “BCWP Programme Earned Value”

APRIL BASELINE CAPTURE	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
PLANNED VALUE =MARCH PROJECT EAC)	£ 6,500	£ 9,000	£ 12,000	£ 9,000	£ 6,000	£ 5,500	£ 5,500	£ 2,000	£ 1,000	£ -	£ -	£ -
ANNUAL BCWS Cumulative	£ 6,500	£ 15,500	£ 27,500	£ 36,500	£ 42,500	£ 48,000	£ 53,500	£ 55,500	£ 56,500	£ 56,500	£ 56,500	£ 56,500
ACTUAL COST	£ 4,500	£ 9,000	£ 13,500	£ 13,500	£ 13,500	£ 13,500	£ 13,500	£ 13,500	£ 13,500	£ 13,500	£ 13,500	£ 13,500
Annual Programme % Complete	7%	13%	20%									
Annual Programme % Expended	8%	16%	24%									
EARNED VALUE	£ 3,739	£ 7,478	£ 11,217	£ -	£ -	£ -	£ -	£ -	£ -	£ -	£ -	£ -
Programme SPI	0.58	0.48	0.41									
Programme CPI	0.83	0.83	0.83									
PEC SPI	0.69	1.00	1.13									
CURRENT EAC (Current project Data Date EAC)	£ 4,500	£ 7,000	£ 14,000	£ 10,000	£ 8,000	£ 4,500	£ 3,500	£ 3,500	£ 3,500	£ 5,500	£ 4,000	£ -
CURRENT EAC Cumulative	£ 4,500	£ 11,500	£ 25,500	£ 35,500	£ 43,500	£ 48,000	£ 51,500	£ 55,000	£ 58,500	£ 64,000	£ 68,000	£ 68,000

The workbook above demonstrates how the functionality works, with the March/April EAC forming the baseline and the current EAC and Actuals allowing the other calculations and projections being.

True earned value is derived from the Project work area (PWA) but due to the constant changing portfolio will not help the Asset Management measure progress effectively and should only be used by the internal teams to measure their performance

Programme Planned Value= **Annual Cumulative Project baseline**

The programme BAC (Planned Value) is the PLA value which is baselined in April and October.

Programme % Complete = **PWA Cumulative Annual project Actual**

PWA Cumulative Annual EAC

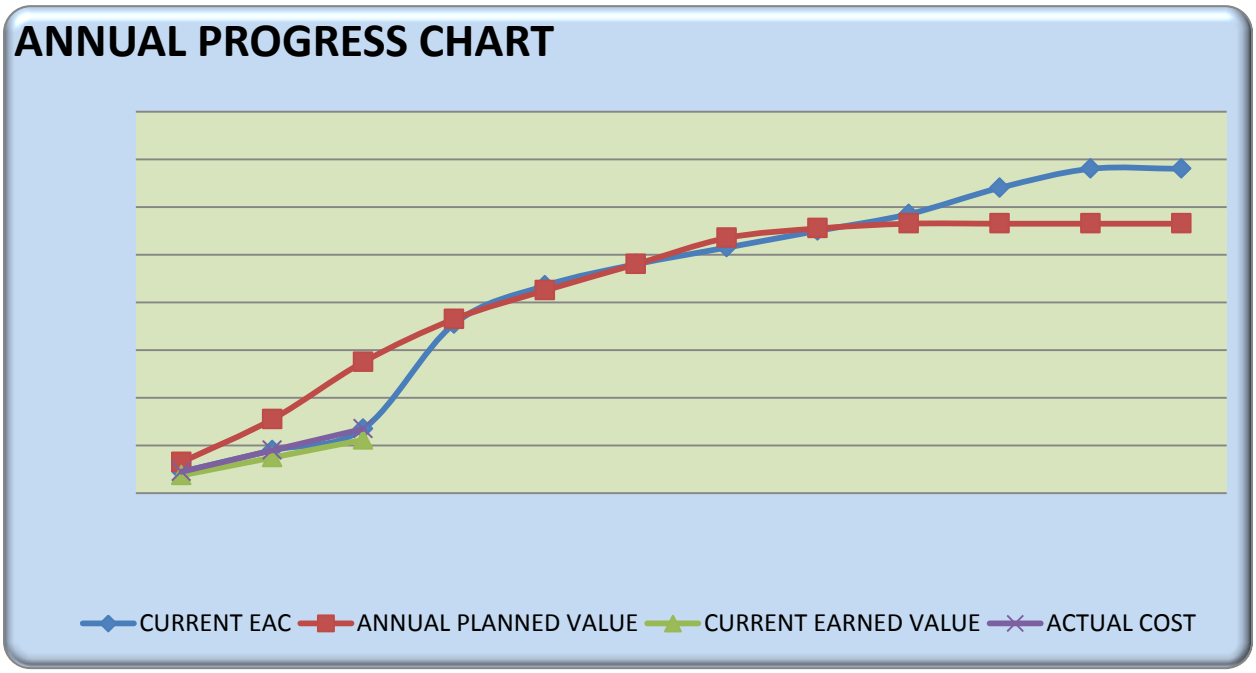
The PWA cumulative actual will be the cumulative actual from the start of the year with no carry over monies from the previous year.

This calculation gives true annual programme % complete

Earned Value **=** **% complete * annual BAC**

Programme SPI **=** **BCWP(% complete * annual EAC)**

Programme CPI = BWCS (derived from Annual EAC Profile) / BWCP (% complete * annual EAC) / ACWP (derived project rolled up actual)



3.4 PWA / PLA Programme Level Expenditure Achieved

This is different than EVA but will give the client the progress on achieving the annualised expenditure

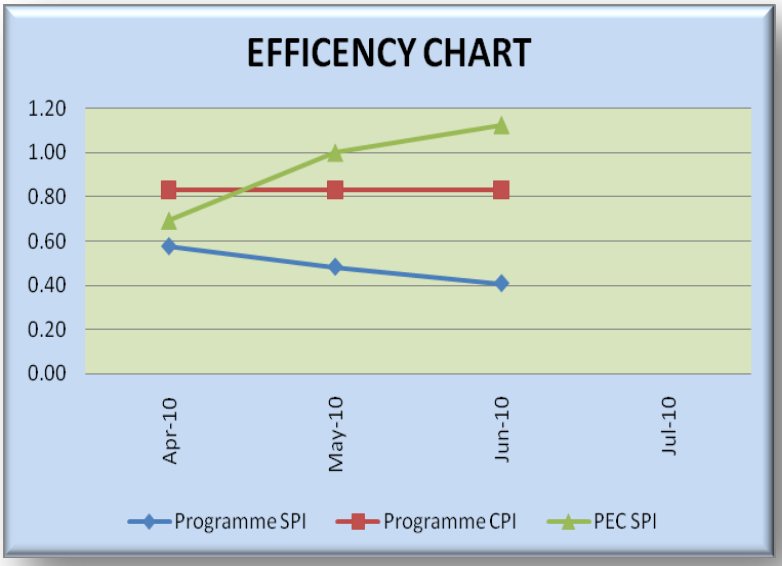
Programme % Expenditure Complete (PEC) = PWA Cumulative Annual Actual / PLA Cumulative Annual BAC

This calculation will indicate the proportion of annual spend achieved but not delivery progress.

This technically means the earned and the actual will be the same so CPI calculations are not applicable but the SPI is relevant

By using this methodology we will be able to measure a type of earned performance over the programme even though the portfolio is changing

PEC SPI = PEC BCWP (% complete * annual BAC) / BWCS (derived from Annual BAC Profile)



The SPI becomes an efficiency factor on the overall annual expenditure

The Schedule Variance calculation

PEC SC = PEC BCWP-BCWS is relevant

Most of the analysis at programme level should be based on S Curves. Moreover, schedule variances. For cost efficiencies, refer to Programme EVA.