



## OZ Minerals

The "Story" OZ Minerals using SAP Analytics Cloud to provide valuable insights into budgeting for asset maintenance costs and activities

November 2022



A modern  
mining company

Dean Rigelsford  
OZ Minerals



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# Agenda

- / Background – Who are OZ Minerals
- / SAP/SAC Timeline
- / The Building Blocks of our SAC EAM Planning Solution
  - Models
  - Data
  - Stories
  - Dashboard/Reports
- / Learnings – Importance of Master Data
- / Roadmap

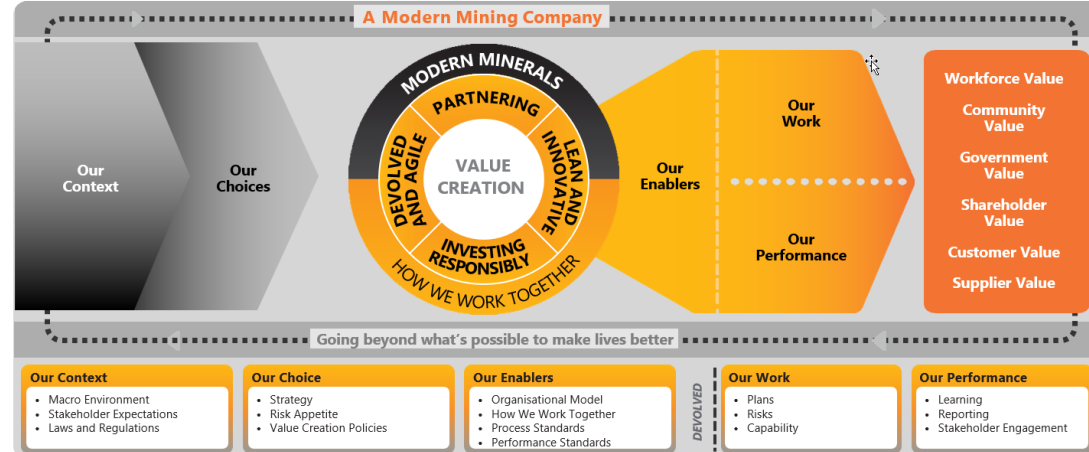


# About the Company

At OZ Minerals, we strive to be modern.

- / Our Strategy is centred around value creation for stakeholders, and supports the achievement of our Purpose, going beyond what's possible to make lives better
- / We seek to ethically and responsibly explore, mine and sell modern minerals. In doing so, we are contributing to a low carbon future and economic wellbeing which, in turn, helps us achieve our purpose and contribute to a better future.

## The OZ Way

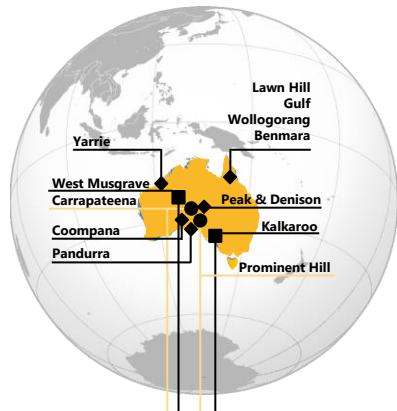


Purpose driven organisation creating value for stakeholders enabled by culture

# 1 Overview

## The Global Modern Minerals Mining Company

### Australia



### World



### Brazil

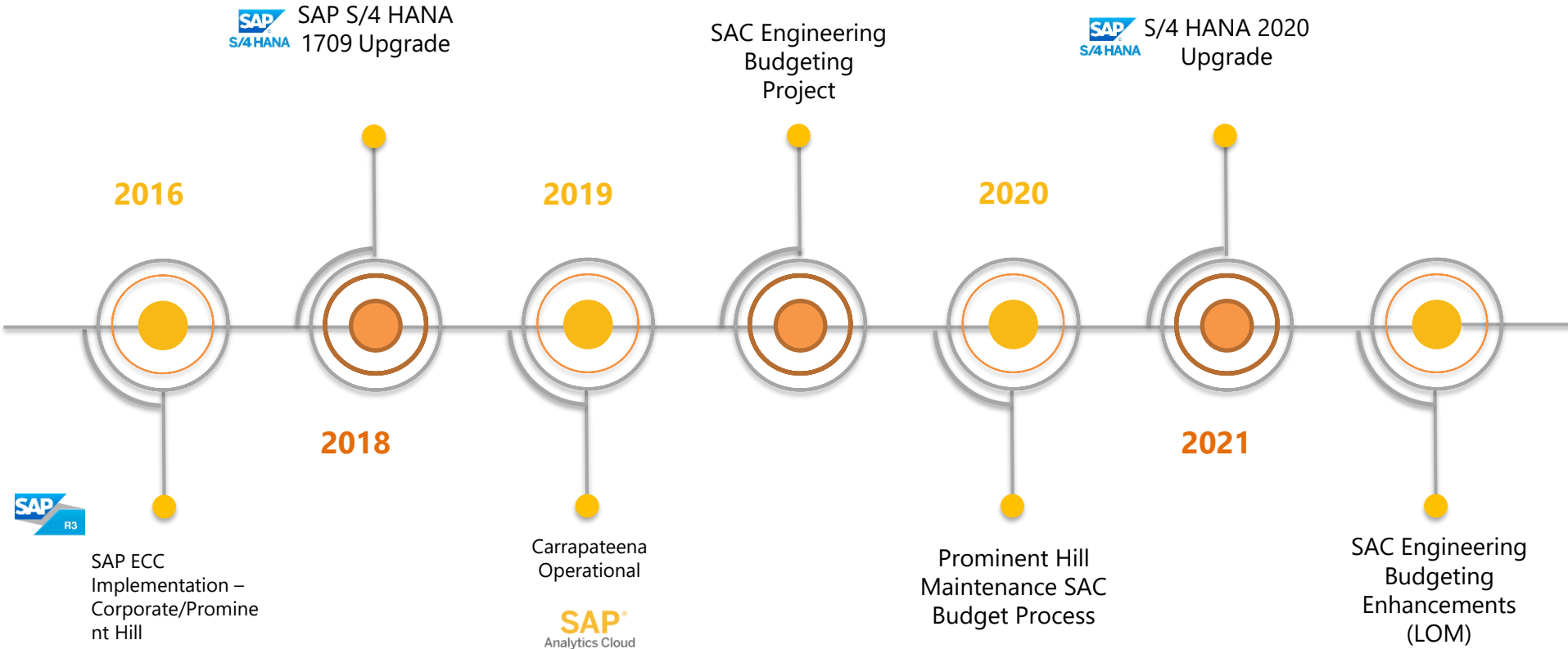


Carrapateena	Prominent Hill	West Musgrave	Kalkaroo <sup>2</sup>	Carajás Province	Gurupi Province
<b>Resource</b> 950Mt @ 0.56% Cu, 0.25g/t Au <b>Cu</b> <b>Au</b>	<b>Resource</b> 150Mt @ 0.9% Cu, 0.8g/t Au <b>Cu</b> <b>Au</b>	<b>Resource<sup>1</sup></b> 390Mt @ 0.33% Cu, 0.30% Ni + 156Mt @ 0.6% Cu <b>Ni</b> <b>Cu</b>	<b>Resource<sup>3</sup></b> 245Mt @ 0.45% Cu, 0.41g/t Au <b>Cu</b> <b>Au</b>	<b>Resource<sup>5</sup></b> 19Mt @ 1.6% Cu, 0.4 g/t Au + 5Mt @ 2.1% Cu, 0.35 g/t Au <b>Cu</b> <b>Au</b>	<b>Resource</b> 28Mt @ 1.9g/t Au <b>Au</b>
<b>Mine life</b> 23 years <b>Reserve</b> 210Mt @ 1.1% Cu, 0.44g/t Au <b>Guidance</b> 2022 production 55-61kt Cu, 75-85koz Au 2022 AISC US135-155c/lb	<b>Mine life</b> 14 years <b>Reserve</b> 62Mt @ 0.9% Cu, 0.6g/t Au <b>Guidance</b> 2022 production 55-62kt Cu, 120-125koz Au 2022 AISC US200-215c/lb	<b>Mine life</b> 24 years <b>Reserve</b> 270Mt @ 0.34% Cu, 0.31% Ni <b>FS metrics</b> Production (LOM) 28kt Ni, 35kt Cu <b>C1 cash cost</b> US(1.20-1.10)c/lb (net of Ni by-product)	<b>Mine life</b> 15 years <b>Reserve<sup>3</sup></b> 100Mt @ 0.47% Cu, 0.44g/t Au <b>PFS metrics<sup>4</sup></b> Production 30kt Cu, 72koz Au <b>C1 cash cost</b> US167c/lb	<b>Mine life</b> 7 years (Pedra Branca) <b>Reserve</b> 5Mt @ 2.1% Cu, 0.5g/t Au <b>Guidance</b> 2022 production 10-12kt Cu & 8-10koz Au 2022 AISC US265-275c/lb	<b>Mine life</b> 10 years <b>Reserve</b> 20Mt @ 1.7g/t Au <b>PFS metrics</b> Production 100-120koz AISC US\$640/oz

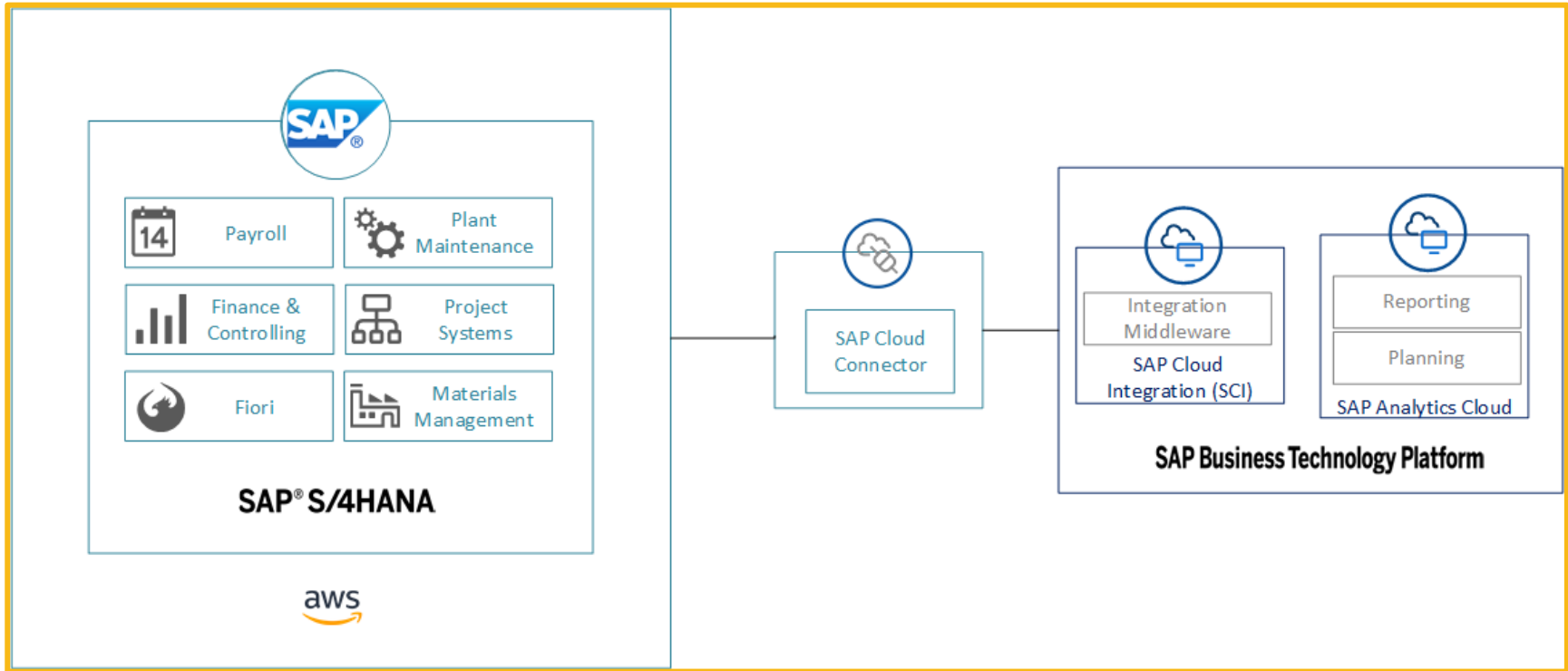
**LEGEND** ● Operating ◆ Exploration ■ Study phase **Cu** Copper **Au** Gold **Ni** Nickel **Operations** **Project/Studies** **Option to Acq.**

Notes: 1. West Musgrave includes the Succoth deposit (156Mt @ 0.6% Cu Mineral Resource); 2. Havilah shareholder approval was obtained to grant OZ Minerals the option to acquire the Kalkaroo Project on 31 August 2022. See ASX release entitled "Havilah Shareholders approve Kalkaroo Option" dated 31 August 2022; 3. Kalkaroo Resource and Reserve metrics taken from Havilah Resources' ASX release, "Annual Report to Shareholders" dated 26 October 2021; 4. Kalkaroo production metrics taken from Havilah Resources' ASX release, "Positive Kalkaroo PFS Supports Large Scale Copper Project" dated 18 June 2019; 5. Carajás Province includes the Santa Lúcia deposit (5Mt @ 2.1% Cu, 0.35g/t Au Mineral Resource).

# The OZ Minerals SAP Journey



# SAP Analytics Cloud – Architecture



# Engineering & Maintenance Budgeting

## The Vision

Develop a modern Zero Based Budget solution to support financial planning for Preventative (Maintenance Plans), Minor Corrective (Work Orders) and Major Corrective Maintenance at a Functional Location, Maintenance Type, Material and Object Type level

## Problems we are solving



Shift away from complex Excel budget spreadsheets



Common data model & automate integration



Shared planning process across sites



Breaking down knowledge silos



Better visibility and analysis of budgets and actual performance

## Benefits to OZ Minerals



Reduce time to value



Reduce overheads of budgeting, forecasting & planning



Accurate Engineering & Maintenance Budgets – Data Quality



Improve Maintenance Budget Reporting



Build positive partnerships & relationships



# Building Blocks of the SAC Engineering Model

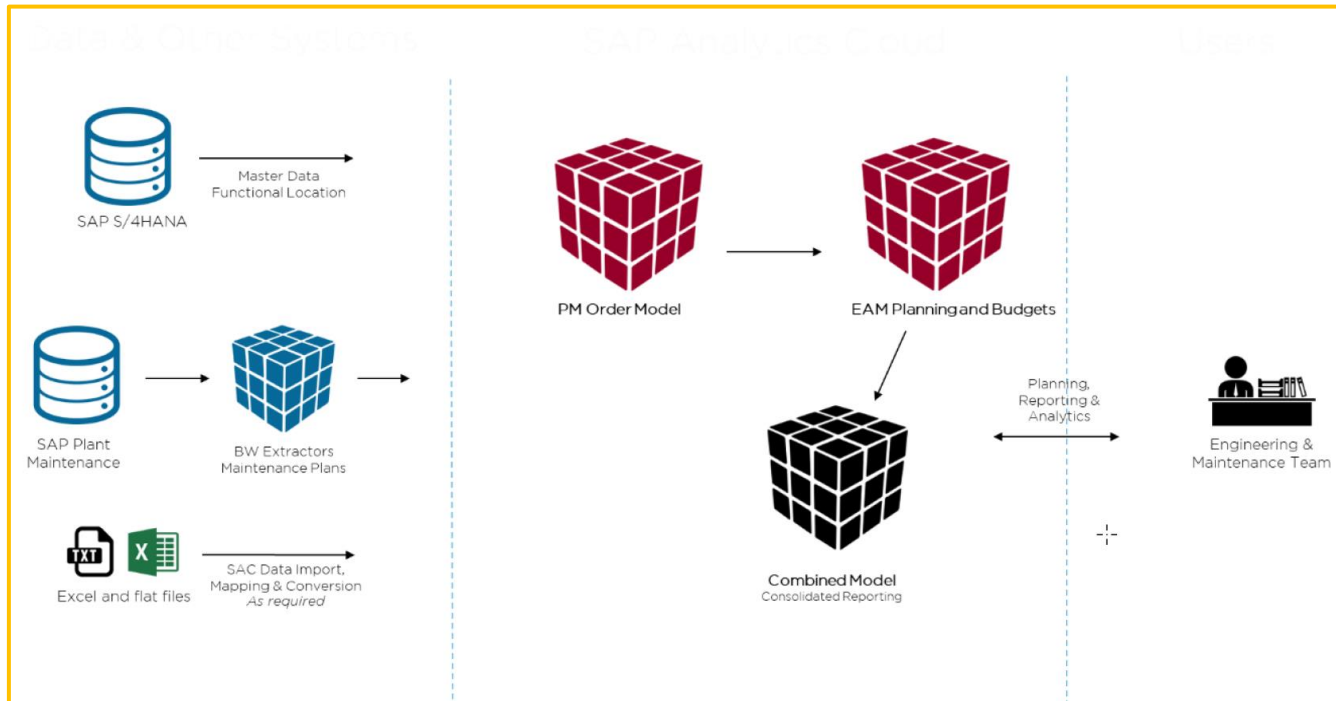


bluetree

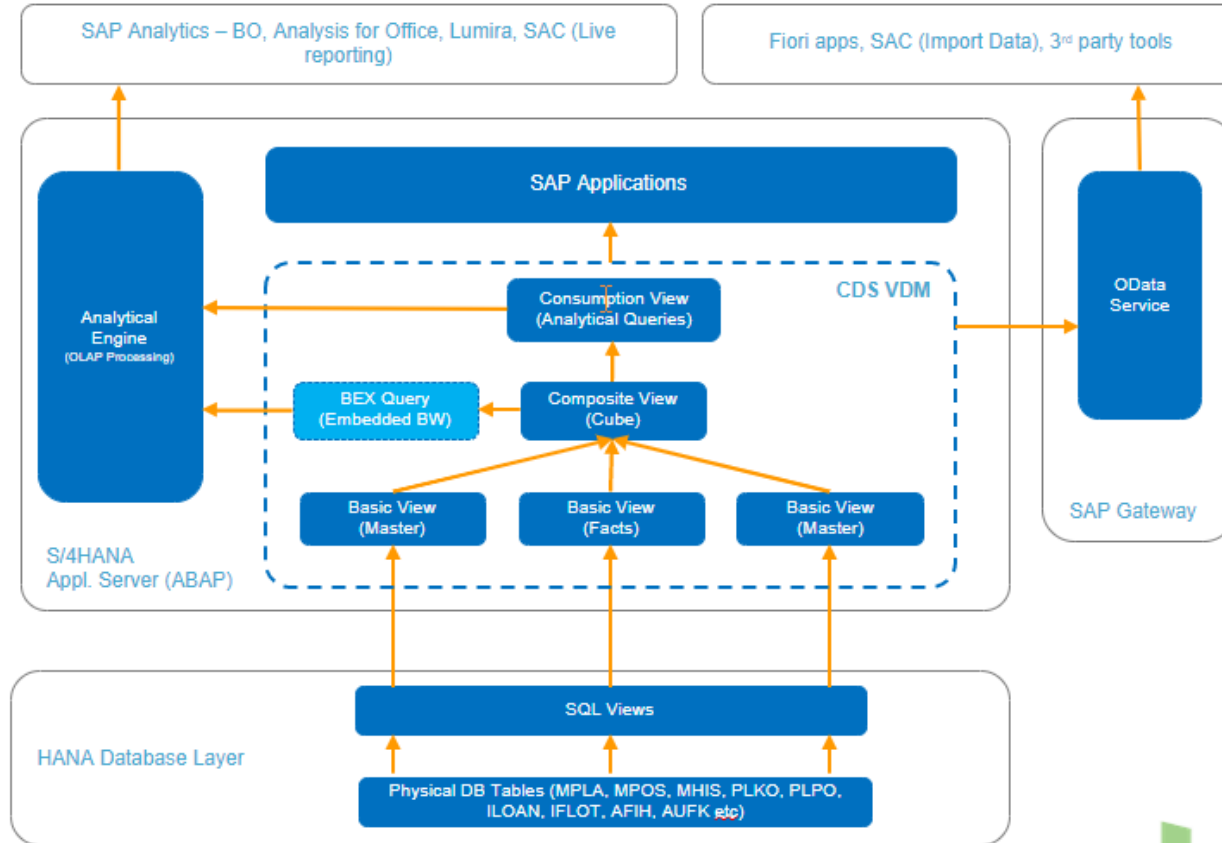


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# SAC Budget Solution Overview

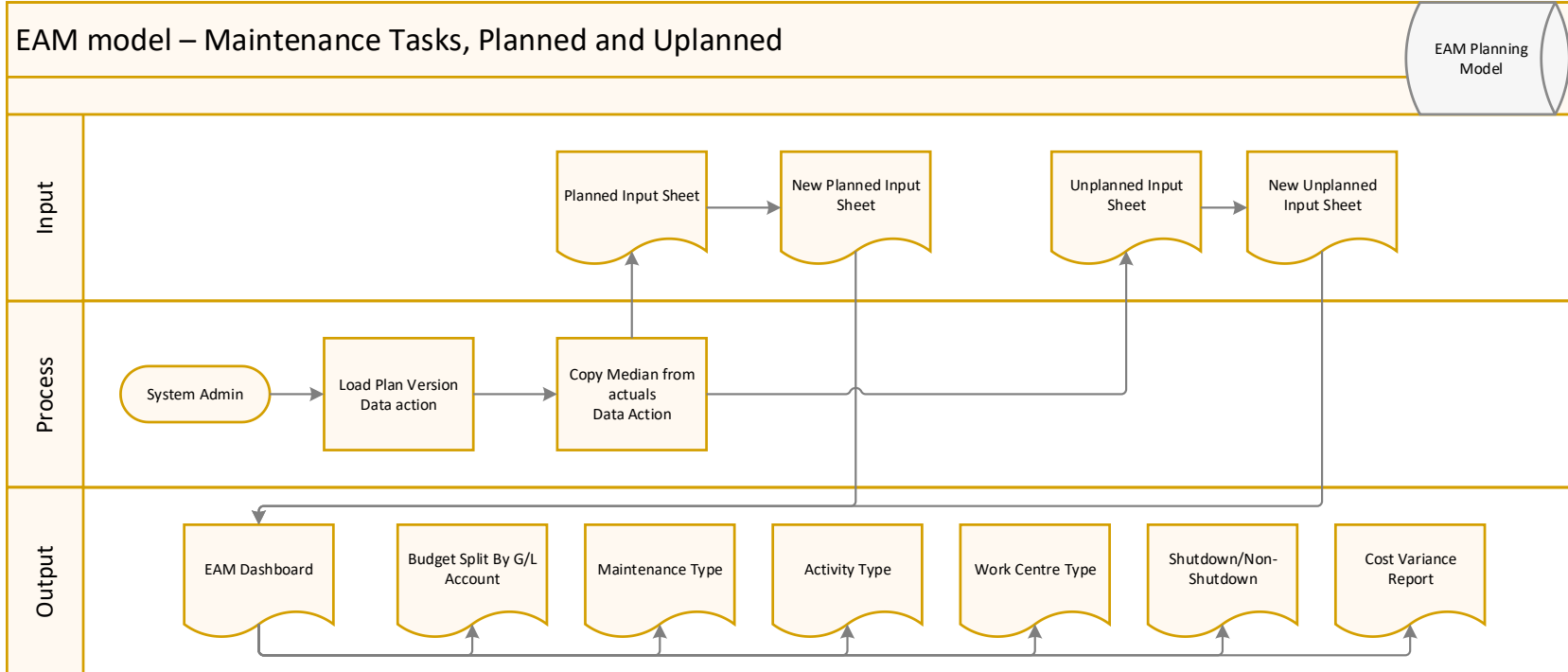


# CDS Views – The Wizardry Pulling The Data Together



# EAM Budgeting and Planning Solution

## Planning Process



# Stories

**SAP** Stories 01 EAM Home

File Edit Tools Display Home 1/1 Controls Edit View

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**EAM Planning, Analysis & Reporting**  
Date: Nov 9, 2022 User: Dean Rigelsford

### Variance Analysis

- [Dashboard](#)
- [Variance Report](#)
- [Cost Centre Dashboard](#)
- [Cost Centre Variance Report](#)

### Actual Analysis (Orders)

- [Actuals at PM Order level](#)
- [Actuals at Task List level](#)

### Planning Inputs

- [Planned Inputs](#)
- [Unplanned Inputs](#)
- [New Planned Inputs](#)
- [New Unplanned Inputs](#)
- [Non-Maintenance Cost Planning](#)

### Other Reports

- [Budget Split By G/L Account](#)
- [Maintenance Type](#)
- [Activity Type](#)
- [Work Centre Type](#)
- [Shutdown/Non-Shutdown](#)
- [Total Cost Centre Report](#)



## Inputs

- The Planned tab of the EAM Planning story will facilitate all planned tasks. The Frequency, Actual Cost per Task (Median), Plan Cost per Task (SAP) Cost Variance % and Total cost per account will be loaded in the EAM Planning and Budgeting Model. This will be loaded against Company, Cost Centre, Functional Location, Task List and Account.

**\*Please Note – All values in this screenshot are test data**

## Inputs

- The Unplanned tab of the EAM Planning story will facilitate all Unplanned maintenance task planning. The Frequency, Actual Cost per Task (Median), Plan Cost per Task (SAP) Cost Variance % and Total cost per account will be loaded in the EAM Planning and Budgeting Model. This will be loaded against Company, Cost Centre, Functional Location, Task List (**System generated task list**) and Account.
- The data will be recorded against 12 dummy Task lists:

Unplanned Major Electrical Non-Shutdown
Unplanned Major Electrical Shutdown
Unplanned Major Mechanical Non-Shutdown
Unplanned Major Mechanical Shutdown
Unplanned Major Production Non-Shutdown
Unplanned Major Production Shutdown
Unplanned Routine Electrical Non-Shutdown
Unplanned Routine Electrical Shutdown
Unplanned Routine Mechanical Non-Shutdown
Unplanned Routine Mechanical Shutdown
Unplanned Routine Production Non-Shutdown
Unplanned Routine Production Shutdown

[illegible]


# Planning Story

## Inputs

### / New Planned

- The New Planned tab of the EAM Planning story will facilitate all New Planned maintenance task planning. Planning at a Company, Cost Centre, Functional Location , Account and Task List. The data will be recorded against 12 dummy Task lists:

Planned
Planned Major Electrical Non-Shutdown
Planned Major Electrical Shutdown
Planned Major Mechanical Non-Shutdown
Planned Major Mechanical Shutdown
Planned Major Production Non-Shutdown
Planned Major Production Shutdown
Planned Routine Electrical Non-Shutdown
Planned Routine Electrical Shutdown
Planned Routine Mechanical Non-Shutdown
Planned Routine Mechanical Shutdown
Planned Routine Production Non-Shutdown
Planned Routine Production Shutdown

Planned Unplanned <span>▼</span> New Planned New Unplanned											
 A modern mining company			New Planned Date: May 12								
Company (1) OZ Minerals Prom Hill			Cost Centre (1) 6080003211 (Primary Crush...			Functional Location... PH-3000-3100-SUB00...					
Functional Location			Task List			Account			Version		
									Date		
									Plan		
									2020		
									Jan (2020)		
									Feb (2020)		
									Mar (2020)		
									Apr (2020)		
									May (2020)		
PH-3000-3100-SUB002 Substation Crushing 3100SUB002			Planned Major Mechanical Non-Shutdown			> Capital > Ext Lab > Int Lab > Mat > Misc Services > Utilities			--	--	--
						Cross Company Labour			--	--	--
						Capitalised Labour Recovery Costs			--	--	--
						Depreciation Plant and Equipment			--	--	--
						Depreciation of Information Technology			--	--	--
						Cross Company Other Charges			--	--	--
						UG Factorisation - Cash			--	--	--
						Accumulated Labour			--	--	--
						Production Costs Cash			--	--	--
						UG Factorisation - Cash			--	--	--

# Planning Story

## Inputs

### / New Unplanned

- The New Unplanned tab of the EAM Planning story will facilitate all New Unplanned maintenance task planning. Planning at a Company, Cost Centre, Functional Location , Account and Task List. The data will be recorded against 12 dummy Task lists:

Unplanned Major Electrical Non-Shutdown
Unplanned Major Electrical Shutdown
Unplanned Major Mechanical Non-Shutdown
Unplanned Major Mechanical Shutdown
Unplanned Major Production Non-Shutdown
Unplanned Major Production Shutdown
Unplanned Routine Electrical Non-Shutdown
Unplanned Routine Electrical Shutdown
Unplanned Routine Mechanical Non-Shutdown
Unplanned Routine Mechanical Shutdown
Unplanned Routine Production Non-Shutdown
Unplanned Routine Production Shutdown

PlannedUnplannedNew PlannedNew Unplanned

OZ

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Company (1)

OZ Minerals Prom Hill

Cost Centre (1)

6080006120 (Workshop Elec...

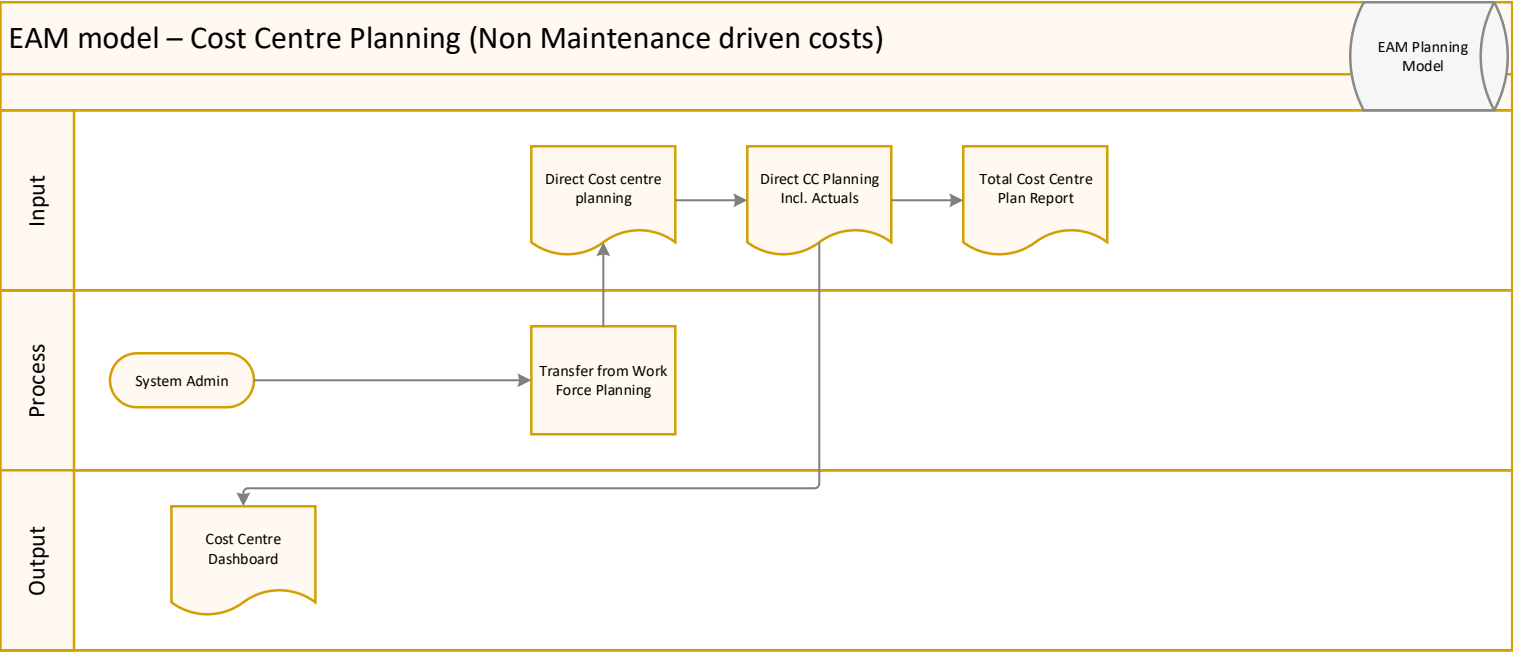
Functional Location...

PH-3000-3100-3100 (Primar...

			Version	Plan								
			Date	▼ 2020	Jan (2020)	Feb (2020)	Mar (2020)	Apr (2020)	May (2020)	Jun (2020)		
Functional Location	Task List	Account										
PH-3000-3100-3100 Primary Crushing Reclaim	Unplanned Routine Mechanical Non-Shutdown	Frequency		-	-	-	-	-	-	-	-	
		> Capital		-	-	-	-	-	-	-	-	
		Contractors Labor Re...		-	-	-	-	-	-	-	-	
		Tradesperson Labor ...		-	-	-	-	-	-	-	-	
		Materials		-	-	-	-	-	-	-	-	
		Temporary Labour		-	-	-	-	-	-	-	-	
		Services		-	-	-	-	-	-	-	-	
		> Utilities		-	-	-	-	-	-	-	-	
		Unplanned Major Mechanical Non-Shutdown	Frequency		-	-	-	-	-	-	-	-
			> Capital		-	-	-	-	-	-	-	-
Contractors Labor Re...			-	-	-	-	-	-	-	-		
Tradesperson Labor ...			-	-	-	-	-	-	-	-		
Materials			-	-	-	-	-	-	-	-		
Temporary Labour			-	-	-	-	-	-	-	-		
Services			-	-	-	-	-	-	-	-		
> Utilities			-	-	-	-	-	-	-	-		

# EAM Budgeting and Planning Solution

## Cost Centre Planning (Non-Maintenance driven costs)





# Cost Centre Planning Story

## Cost Centre Planning (Non-Maintenance driven costs)

### / Direct Cost Centre planning

- Direct cost centre planning will be done at a company, cost centre and account combination.

Company (AU) Cost Centre (AU) Date (1) Dec (2019) - Dec (2019) Version (2) Plan, Actual

Direct CC Planning Direct CC Planning Incl... Total CC Plan Report

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Transfer From Work Force ...

**Cost Centre planning**

Date: May 12, 2020 User: Steven Blumenthal

**\*Please Note – All values in this screenshot are test data.**

Cost Centre	Account	Version	Plan	Actual
6080006000 Engineering	✓ Total Cost		585,586.27	585,586.2
	✓ Int Lab		585,586.27	585,586.2
	Int. Lab		418,639.45	418,639.4
	Bonuses		51,922.63	51,922.6
	Allowances		22,500.18	22,500.1
	Workers' Compensation Insurance		13,624.62	13,624.6
	Payroll Tax		26,976.75	26,976.7
	Share Based Payments		51,922.63	51,922.6
6080006120 Workshop Electrical	✓ Total Cost		148,535.14	148,535.1
	✓ Int Lab		148,535.14	148,535.1
	Int. Lab		108,947.05	108,947.0
	Bonuses		10,894.71	10,894.7
	Allowances		7,500.06	7,500.0
	Workers' Compensation Insurance		3,455.91	3,455.9
	Payroll Tax		6,842.71	6,842.7
	Share Based Payments		10,894.71	10,894.7
6080006220 Workshop Mechanical	✓ Total Cost		186,177.37	186,177.3
	✓ Int Lab		186,177.37	186,177.3

### Using Add member functionality

Account
✓ Total Cost
✓ Int Lab
Int. Lab
Bonuses
Allowances
Workers' Comp
Payroll Tax
Share Based P
✓ Total Cost
✓ Int Lab
Int. Lab
Bonuses
Allowances
Workers' Compensation Insurance
Payroll Tax
Share Based Payments

Add member

Sort Options

Add calculation

Hide row

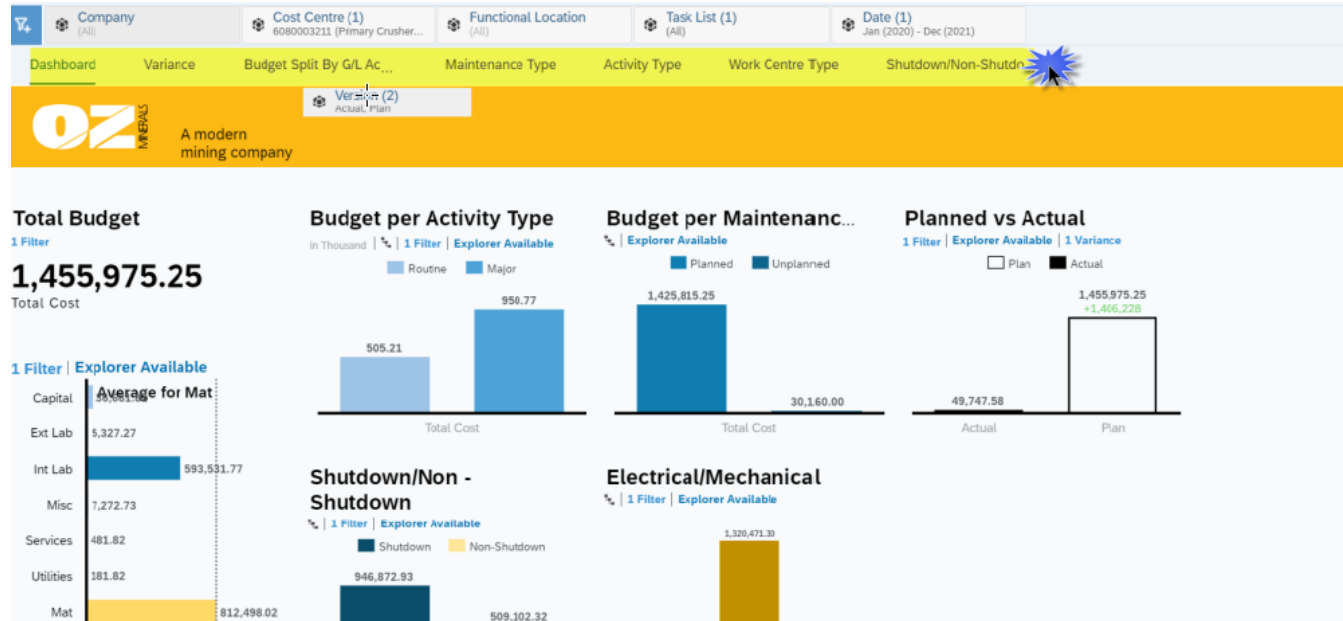
Table Functions

Direct Cost centre  
planning

Direct CC Planning  
Incl. Actuals

Total Cost Centre  
Plan Report

# Example Dashboard



\*Please Note – All values in this screenshot are test data.



# Learnings

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# Master Data – Task List & BOM Accuracy for Budgeting

- / Development of the EAM Budgeting Solution highlighted issues around data quality in Task Lists & Bill of Materials.
- / Significant amount of Task Lists did not contain Materials and/or accurate operation data (incorrect resource work centers, planned hours etc). This had a significant impact on the Planned portion of the budget process.
- / PM Eleven's BOM & Task List Review Tools significantly reduced the administrative requirements that would have consumed Maintenance Planners at site for weeks.





# Task List Review Tool

### Task List Review Initial

Selection Method:

☒ Task Lists  
☐ Work Orders

Task List Selection Parameters

Task List Type	A	to	
Task List Group		to	
Task List Counter		to	
Plant	6080		
Planner Group		to	
Basic Start Date	09.09.2022	to	09.11.2022

Accuracy Parameters

Hours Variance	1
Hours % Variance	10
Component % Variance	10

### Task List Review

Update Task Lists

Icon	TLty	Grp	Gr.C	Task List Description
●	A	CVBL05	5	17W Spec CVR001 Pulley & Belt INSP
●	A	PH1681	9	1W Mech Statutory Scaffolding Inspection
●	A	PH1681	15	3M Mech Crushing Area Grid Mesh Insp
●	A	PH1681	19	6W Mech Oil Analysis Crushing Area
●	A	PH1681	1	1W Mech Pump Inspect US Twin Mono Pumps
●	A	ELMT03	1	17W Elec Isa Mill Motor INSP
●	A	ELSR02	1	3W Elec Ankata Sub Station Insp
●	A	ELSR02	2	5W Elec Ankata Sub Station Insp SWR500
●	A	ELSR02	3	1M Elec Ankata Sub Air Con Insp
●	A	PH1681	26	3W Mech Crusher Online Inspection
●	A	PH3110	3	1W Mech Online Reclaim Area INSP
●	A	PH3110	7	3W Mech Online Reclaim Area INSP
●	A	PH3200	6	1M Mech Oil Analysis Grinding Area
●	A	PH3200	7	6W Mech Oil Analysis Grinding Area
●	A	CVBL06	5	17W Spec Offline CVR002 INSP
●	A	CVBL06	7	17W Mech Conv & Drv Shutdown INSP CVR002
●	A	FEAB01	6	17W Elec Crusher Apron Feeder Insp
●	A	FEAB01	9	17W Elec Offline STAT F0A001 P/W Insp
●	A	HSGN06	1	17W Elec Crusher Hydrosert Inspection
●	A	NGEM01	1	17W Elec CVR001 Magnet Oil Sampling
●	A	NGEM01	3	1W Elec Tramp Metal Isolations MGT001
●	A	MLBL02	1	17W Elec Cooling Wtr Vlv Stroke Ball Mill
●	A	PH3200	32	1W Mech Online Grinding Area INSP
●	A	PH3200	33	1W Mech Online Grinding Thermo
●	A	HOFE03	1	1M Mech Ankata Bore Hole Inspection
●	A	PH3200	35	3M Mech Grinding Area Grid Mesh Insp
●	A	PH3200	36	1M Mech Lube Schedule Grinding
●	A	PH3200	48	3W Mech Online Grinding Area INSP
●	A	PH3200	49	4W Mech Online Grinding Area INSP
●	A	MLBL02	3	17W Elec Emrg Circuit Stop Tst Ball Mill
●	A	PH3200	50	5W Mech Online Grinding Area INSP
●	A	PUCE10	1	34W Mech Shutdown Pump INSP PPC173
●	A	PH3210	2	17W Mech Online Sag Mill Pre Shut INSP
●	A	MLBL02	11	5W Elec LRS Shed INSP
●	A	MLBL03	3	1W Elec Online Re grind Area INSP
●	A	MLBL03	11	3W Elec Online Re grind Area INSP
●	A	PH3210	4	5W Mech Shutdown EM And On Men Motor

#### Task List Hierarchy

- PUCE10
  - 0004 Franna remove pump components PPC173 MX04-C... 3.0 0.0
  - 0005 Driver remove pump components PPC173 MX02-R... 3.0 0.0
  - 0006 Rigger remove pump components PPC173 MX02-R... 3.0 0.0
  - 0010 34W Mech Shutdown Pump INSP PPC173 SE02-TEC 16.0 12.0
  - 108106 PACKING WARMAN GLAND PACKING RINGS... 0.000 1.000
  - 116032 ORING 2C-AHF SHAFT SLEEVE O-RING NIT... 0.000 1.000
  - 147057 ORING WARMAN SHAFT SLEEVE O-RING NI... 0.000 1.000
  - 157420 LINER COVER PLATE 2C-AHF RUBBER DWG ... 0.000 1.000
  - 175091 SLEEVE 2C-AHF SHAFT SLEEVE CERAMIC ON 0.000 1.000
  - 189738 BELT SPZ1120 RED OPTI-BELT 0.000 3.000
  - 193375 PULLEY 3 V 100MM PCD SPZ SECT SUIT 1610 0.000 1.000
  - 60000870 34W Mech Shutdown PPC173 Pump Inspection 1.000 1.000
  - 60000300 Mech Pump Drawing 1.000 1.000
  - 0020 Rubber works for PPC173 if required RM02-... 3.0 0.0
  - 0030 Franna reinstall pump components PPC173 MX04-C... 3.0 0.0
  - 0040 Driver reinstall pump components PPC173 MX02-R... 3.0 0.0
  - 0050 Rigger reinstall pump components PPC173 MX02-R... 3.0 0.0

Op no	Plant	Wk Cntr	Operation Description	Work	Unit	Capacities	Duration	Unit
0010	6080	SE02-TEC	34W Mech Shutdown Pump INSP PPC173	12	H	2	8	H

Order Number Operat... Planned Qt Actual Qty Basic Start Date

420120532 0010 16.000 12.000 25.10.2022

Focused on Shutdown Task Lists first, given these were the most complex / high \$\$

Eventually making way down to the higher frequency tasks

Easily able to update the Planned Hours/RWC/Material all within the one screen

**PM | ELEVEN**



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# BOM Review Tool

- It works by finding all the material components previously used on Maintenance Work Orders for an Equipment/FLOC selection and provides the user with a clear list of those which don't exist in a BOM. It then can quickly and easily update the BOM based on your actual material usage

**BOM Review and Build**

Save Updates

Func. Locn Equipment No Object Description Materi...

Func. Locn	Equipment No	Object Description	Materi...
PH-3000-3100-3110		Primary Crushing	4
PH-3000-3100-3110-BIN002		Bin Surge Primary Crusher 3110BIN002	1
PH-3000-3100-3110-CHU001		Chute Prim Crsh Discharge Cht 3110CHU001	1
PH3110CHU003		Chute Prim Crsh Fdr Discharge 3110CHU003	3
PH-3000-3100-3110-CHU004		Chute Apron Feeder Spillage 3110CHU004	1
PH-3000-3100-3110-CHE007		Crane Hydrosert Primary Crushy 3110CHE007	2
PH3110CRG001		Crusher Primary Gyrotary 3110CRG001	44
PH3110CVR001		Chiller Unit Primary Crusher 3110CVR001	1
PH3110OBL009		DB Bld Light & Small Pwr Crsh 3110OBL009	4
PH-3000-3100-3110-FAN001		Fan Vent Primary Crusher 3110FAN001	2
PH-3000-3100-3110-FAN002		Fan Dust Extraction Prim Crsh 3110FAN002	5
PH3110FDA001		Feeder Apron Primary Crusher 3110FDA001	8
PH-3000-3100-3110-MGT001		Magnet Tramp Removal 3110MGT001	1
PH3110MTR008		Primary Crusher Drive Motor 3110MTR008	1
PH3110PPD002		Pmp Lube No.1 Primary Crusher 3110PPD002	7
PH3110PPS033		Pmp Sump Primary Crusher Area 3110PPS033	1

Expand Whole Levels Above

Hierarchy Header	Description	Qty	UOM	BOM Description 1
PH-3000-3100-3110-BIN002	Bin Surge Primary Crusher 3110BIN002			
BINFD04	Bin Surge Primary Crusher 3110BIN002			
196311	SWITCH BUTTON OPERATING HEAD NARR...	1.0	EA	SWITCH LIMIT
198952	TRANSMITTER RADAR TYPE 2 WIRE 4-20mA	1.0	EA	FMR250-A5E1XCJKA2M1
201608	DISPLAY REMOTE UNIT SUIT E&H INSTRU...	1.0	EA	FHX-A1B
229039	VALVE FLOW 150mm NB DIAPHRAGM ACT...	1.0	EA	WW-6-710-Y-C-A5-EB-4I
196329	SENSOR INDUCTIVE TYPE 5-60VDC 1 N/O	2.0	EA	
243733	FLANGE, STUB. 63mm NB, LONG SPIGOT, ...	1.0	EA	FLANGE PIPE
243774	COUPLING 63mm NB PIPE COUPLER PLASSON	1.0	EA	COUPLING PIPE
243816	RING 63mm NB ANST 150b GALV STEEL	1.0	EA	RING
368779	LINERS CHU001 LOWER LEVEL RIGHT HAND	1.0	SET	

Material No. 238758 Material Description PAD ABSORBENT 450mm X 450mm 200GSM POLY 410067253 Order No. 4.000 UOM PAC Mat Doc No. 4900089106 Mat D. 2022 261

# SAP S/4 HANA Upgrades & CDS Views

- / S/4HANA Upgrades & Existing CDS Views
  - Don't forget about these when doing testing.
  - Some CDS Views failed/had issues after the upgrade
- / Set up Alerting on SAC Interfaces between S4/HANA to monitor any integration issues
- / Increase the Data Management frequency in SAC to update Master Data & Transactional Data, particularly during the business planning/budgeting phase.

# Recent Developments & Roadmap

A series of thin white lines and a thick black line that intersect and extend diagonally across the slide, starting from the left and moving towards the top right.

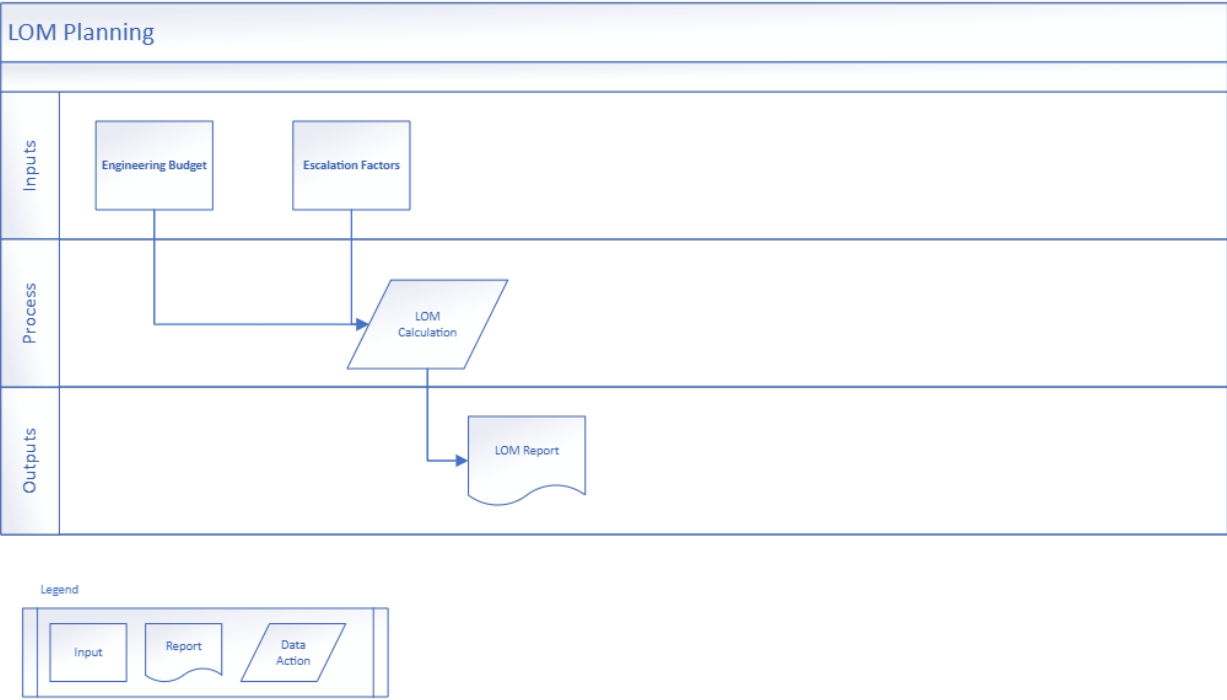
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# 30 Year Engineering Budget - Life Of Mine

- / During the 2021 budget process a requirement was made to be able to simulate an increase or decrease in budget figures at a Cost Center / GL Account level for the next 30 years.
- / Whilst this could have been achieved with the existing Planning inputs it would have required a number of load sheets to be built to input the data for the longer planning horizon.
- / We engaged Bluetree to develop a new SAC Story, Data Actions, and Reports to be able to simulate future year budget numbers utilizing the existing Planning & Budgets Model.



# Maintenance Budget LOM Process



# LOM Escalation % Inputs

Cost Centre	Description	Account Version	Escalation % LoM Test V2 *	Jan (2022)	Jan (2023)	Jan (2024)	Jan (2025)	Jan (2026)	Jan (2027)	Jan (2028)	Jan (2029)	Jan (2030)	Jan (2031)	Jan (2032)	Jan (2033)	Jan (2034)	Jan (2035)	Jan (2036)	Jan (2037)	Jan (2038)	Jan
		Date																			
6080101621	Primary Ventilation - Maintenance		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080101001	UG Supervision/Admin - Maint		99.00	90.00	80.00	75.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080101081	UG Facilities - Maintenance		99.00	90.00	80.00	75.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080101111	Development Drilling - Maintenance		99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	-	-	-
6080101211	Production Blast - Maintenance		99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	-	-	-
6080101601	Mine Services - Maintenance		99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	-	-	-
6080101731	Backfilling - Pastefill - Maintenance		99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	-	-	-
6080101811	Dewatering - Maintenance		99.00	90.00	80.00	75.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080101821	In-Pit Dewatering Maintenance		99.00	90.00	80.00	75.00	-	99.00	90.00	80.00	75.00	-	-	99.00	90.00	80.00	75.00	-	-	-	-
6080003211	Primary Crusher - Maint		99.00	90.00	80.00	75.00	-	99.00	90.00	80.00	75.00	-	99.00	90.00	80.00	75.00	75.00	90.00	80.00	-	-
6080003301	Grinding - Maint		-	-	-	-	-	99.00	90.00	80.00	75.00	-	99.00	90.00	80.00	75.00	75.00	90.00	80.00	-	-
6080003311	Ball Mill - Maint		99.00	90.00	80.00	75.00	-	-	-	-	-	99.00	99.00	90.00	80.00	75.00	75.00	90.00	90.00	80.00	-
6080003321	SAG Mill - Maint		99.00	90.00	80.00	75.00	-	99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	-	-	-	-	-	-
6080003401	Reagent Mixing - Maint		99.00	90.00	80.00	75.00	-	99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	-	-	-	-	-	-
6080003501	Concentrator - Maintenance		-	-	-	-	-	99.00	90.00	80.00	75.00	75.00	-	-	-	-	-	-	-	-	-
6080003511	Flotation - Maint		99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	80.00	75.00	-	-	-	-	-	-	99.00	90.00	-
6080003521	Thickening - Maint		99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	80.00	75.00	-	-	99.00	90.00	80.00	75.00	-	-	-
6080003531	Filtering - Maint		99.00	90.00	80.00	75.00	99.00	90.00	80.00	75.00	-	-	-	-	99.00	90.00	80.00	75.00	90.00	-	-
6080003541	Paste Fill Production - Maint		-	99.00	90.00	80.00	75.00	-	-	-	-	-	-	-	99.00	90.00	80.00	75.00	-	-	-
6080003551	Paste plant new maintenance		-	99.00	90.00	80.00	75.00	-	-	-	-	-	-	-	99.00	90.00	80.00	75.00	-	-	-
6080003801	Tailings Dam - Maintenance		-	99.00	90.00	80.00	75.00	-	-	-	-	-	-	-	99.00	90.00	80.00	75.00	-	-	-
6080006000	Engineering		-	-	-	-	-	-	-	-	-	-	-	-	99.00	90.00	80.00	75.00	-	-	-
6080006001	Engineering - Maintenance		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080006120	Workshop Electrical		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080006220	Workshop Mechanical		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

# Maintenance LOM Example Reporting

SAP

Stories

099 LOM Planning

File

Edit

Tools

Display

Publish Data

LOM - Report Aggregate

< 3 / 4 >

Controls

Edit

View

Company (1)  
6080 (OZ Minerals From Hill)

6080008880	Civil Construction	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080008871	Borefields / Water Distribution - Maint	21,749,292.94	-	-	2,328,232.88	1,639,246.07	1,639,720.46	1,639,246.07	1,639,246.07	1,639,246.07	1,638,297.74	1,635,452.75	1,635,452.75	1,635,452.75	1,635,452.75	1,521,649.13	1,522,597.46
6080008811	Facility Maintenance - Maint	3,861,382.85	-	-	413,355.90	291,032.76	291,116.98	291,032.76	291,032.76	291,032.76	290,864.39	290,359.29	290,359.29	290,359.29	290,359.29	270,154.52	270,322.89
6080008810	Facility Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080008801	Site Services - Maintenance	464,135.09	-	-	49,685.04	34,981.90	34,992.02	34,981.90	34,981.90	34,981.90	34,961.66	34,900.95	34,900.95	34,900.95	34,900.95	32,472.35	32,492.59
6080008800	Site Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080008701	Environmental - Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080008510	ICT - Mining Costs	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080008500	Site ICT Support	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080008401	Materials/Supply Maint	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080101111	Development Drilling - Maintenance	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6080101081	UG Facilities - Maintenance	10,073,806.69	-	-	697,551.89	711,502.93	725,727.51	740,225.65	755,065.73	770,179.35	785,566.52	801,295.63	817,298.30	817,298.30	817,298.30	817,298.30	817,298.30
6080101001	UG Construction/Access - Maint	4,509,010.00	-	-	353,770.00	353,770.00	353,770.00	353,770.00	353,770.00	353,770.00	353,770.00	353,770.00	353,770.00	353,770.00	353,770.00	353,770.00	353,770.00

**\*Please Note – All values in this screenshot are test data.**

				Date	(all)	> 2020	> 2022	> 2023	> 2024	> 2025	> 2026	> 2027	> 2028	> 2029	> 2030	> 2031	> 2032	> 2033	> 2034
Cost Centre	Description	Account	Description																
6080006001	Engineering - Maintenance	▼ Maint Cost	Total Cost	9,587,712.07	-	810,962.08	848,532.08	848,705.18	597,550.46	597,723.39	597,550.46	597,550.46	597,550.46	597,204.77	596,167.69	596,167.69	596,167.69	596,167.69	596,167.69
		▼ Ext Lab	Ext Lab	283,016.60	-	22,734.00	25,164.00	25,169.13	17,720.91	17,726.04	17,720.91	17,720.91	17,720.91	17,710.66	17,679.90	17,679.90	17,679.90	17,679.90	17,679.90
		945000	Contractors Labor Recovery	283,016.60	-	22,734.00	25,164.00	25,169.13	17,720.91	17,726.04	17,720.91	17,720.91	17,720.91	17,710.66	17,679.90	17,679.90	17,679.90	17,679.90	17,679.90
		▼ Int Lab	Int Lab	8,924,825.08	-	754,740.00	789,880.00	790,041.14	556,246.69	556,407.66	556,246.69	556,246.69	556,246.69	555,924.89	554,959.50	554,959.50	554,959.50	554,959.50	554,959.50
		944000	Tradesperson Labor Recovery	8,924,825.08	-	754,740.00	789,880.00	790,041.14	556,246.69	556,407.66	556,246.69	556,246.69	556,246.69	555,924.89	554,959.50	554,959.50	554,959.50	554,959.50	554,959.50
		▼ Mat	Mat	20,192.25	-	1,780.08	1,780.08	1,780.44	1,253.56	1,253.92	1,253.56	1,253.56	1,253.56	1,252.84	1,250.66	1,250.66	1,250.66	1,250.66	1,250.66
		620040	Materials - Mechanical Parts & Consumables	6,115.25	-	539.10	539.10	539.21	379.64	379.75	379.64	379.64	379.64	379.42	378.76	378.76	378.76	378.76	378.76
		620070	Materials - Pumps & Pump Parts	1,521.50	-	134.13	134.13	134.16	94.46	94.48	94.46	94.46	94.46	94.40	94.24	94.24	94.24	94.24	94.24
		620170	Materials - General Consumables	12,555.50	-	1,106.85	1,106.85	1,107.08	779.46	779.69	779.46	779.46	779.46	779.01	777.66	777.66	777.66	777.66	777.66
		▼ Services	Services	359,678.14	-	31,708.00	31,708.00	31,714.47	22,329.30	22,335.77	22,329.30	22,329.30	22,329.30	22,316.39	22,277.63	22,277.63	22,277.63	22,277.63	22,277.63
		630030	Contractor - General	359,678.14	-	31,708.00	31,708.00	31,714.47	22,329.30	22,335.77	22,329.30	22,329.30	22,329.30	22,316.39	22,277.63	22,277.63	22,277.63	22,277.63	22,277.63

# Wrapping Up

## The Vision

Develop a modern Zero Based Budget solution to support financial planning for Preventative (Maintenance Plans), Minor Corrective (Work Orders) and Major Corrective Maintenance at a Functional Location, Maintenance Type, Material and Object Type level

## Problems we are solving



Shift away from complex Excel budget spreadsheets



Common data model & automate integration



Shared planning process across sites



Breaking down knowledge silo's



Better visibility and analysis of budgets and actual performance

## Benefits to OZ Minerals



Reduce time to value



Reduce overheads of budgeting, forecasting & planning



Accurate Engineering & Maintenance Budgets – Data Quality



Improve Maintenance Budget Reporting



Build positive partnerships & relationships

# Questions?

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A modern  
mining company

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