

Designed for Change. Built for You.

Welcome to a Modern Utility

Designed for a safe and secure future

March 12–14, 2023



ORACLE

EXECUTIV

Proje

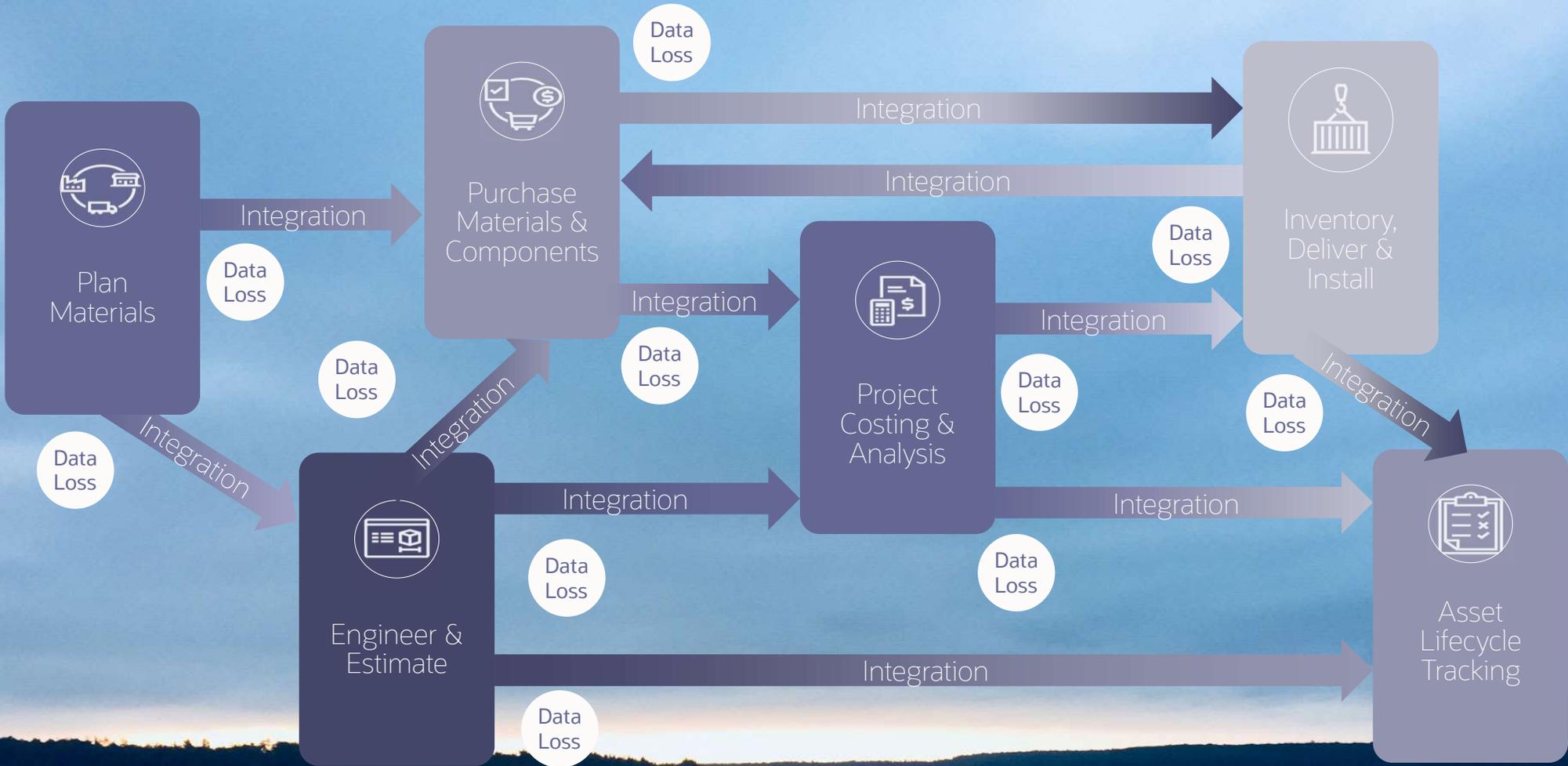
Managing an Optimal Supply Chain for Capital Projects

Joel Sandberg

Master Principal Solution Engineer

June 28, 2022







Engineer &
Estimate



Plan Materials



Purchase
Materials &
Components



Inventory,
Deliver &
Install



Asset Lifecycle
Tracking



Project
Costing &
Analysis

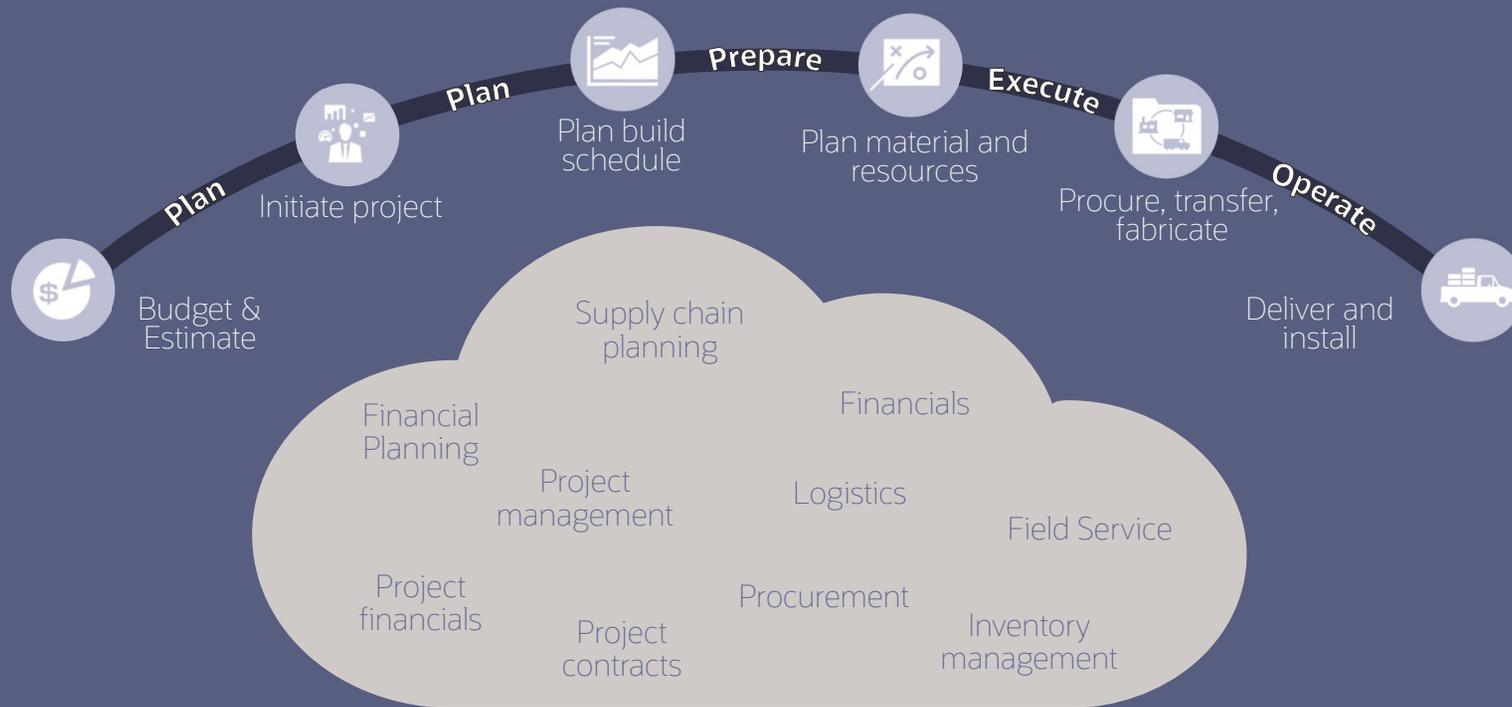


Project Driven Supply Chain for Utilities



Project-Driven Supply Chain

Integrated plan-to-commission solution for constructing assets



Designed For Change. Built For You.

Why Project Driven Supply Chain for Utilities?

Asset Costing

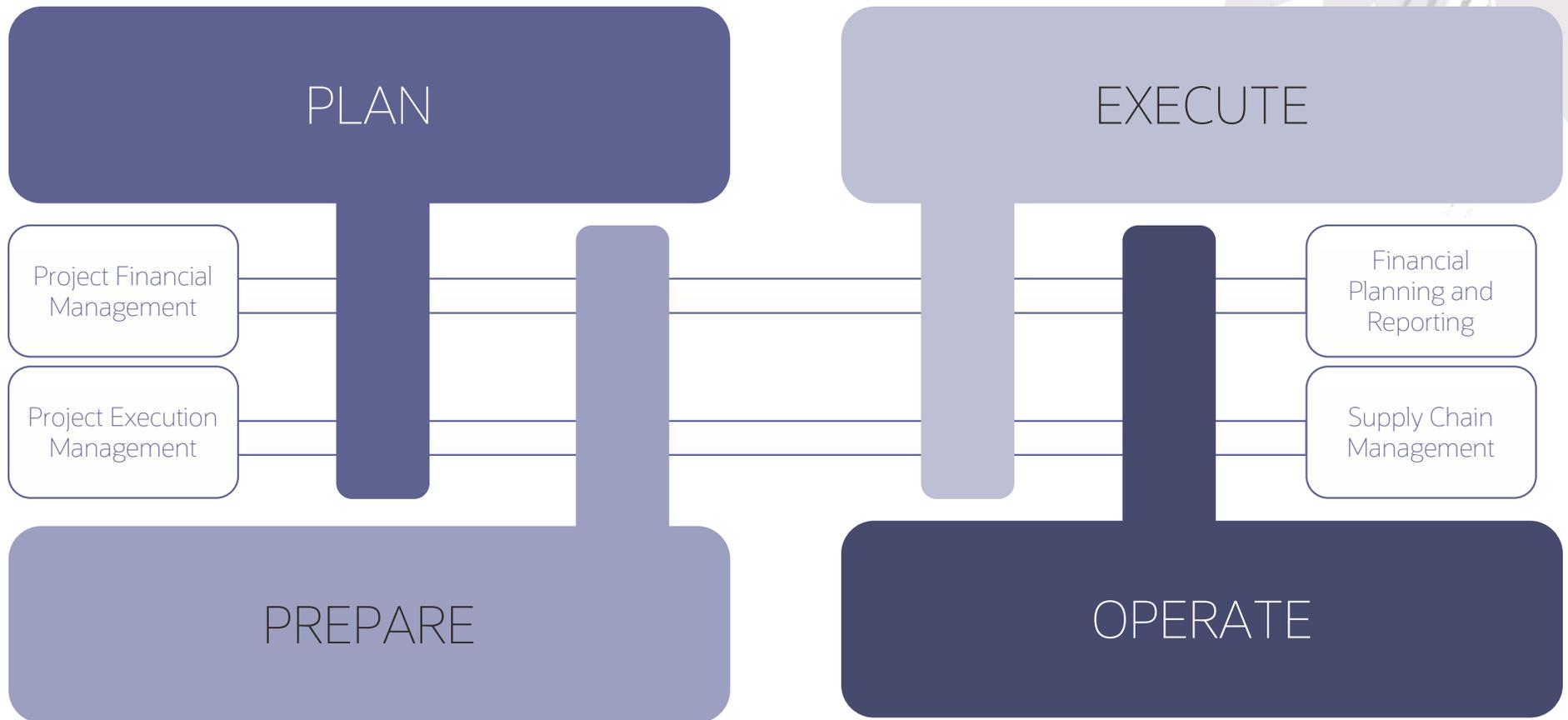
Nimbleness

Joint Venture Management

FERC Compliance



Oracle Cloud connects project planning and execution



Project Driven Supply Chain for Utilities





Designed For Change. Built For You.

Invest in the Right Ideas

- Capture project ideas
- Document project requirements
- Convert requirements into design concepts
- Configure processes and analytics
- Prioritize & Justify capital expenditures



Structure & Formalize Decision-Making

Proposal Name
--Select Value--

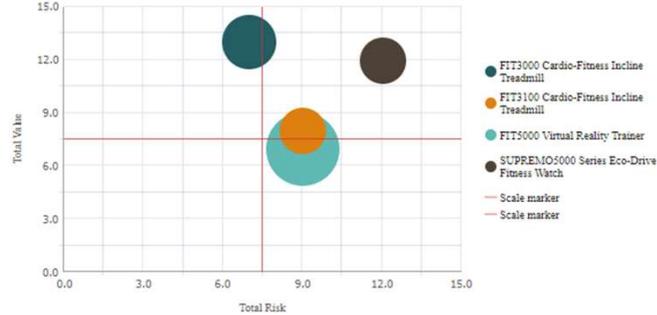
Region
--Select Value--

Country
--Select Value--

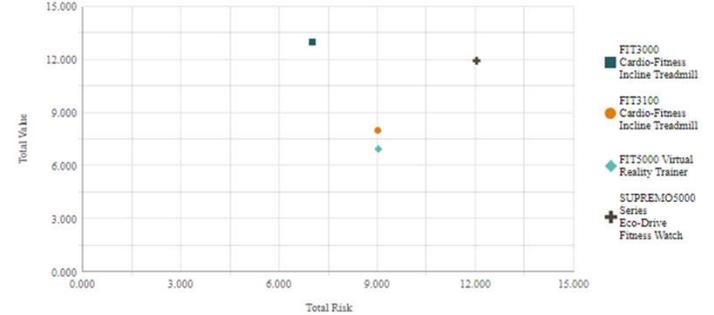
Timing
--Select Value--

Apply Reset

Value Risk Matrix



Total Risk, Total Value



Total Value	Total Risk	Portfolio	Proposal Name	Technical Feasibility	Direct Payback	Business Feasibility	Strategic Alignment	Resource Alignment	Profitability	Net Present Value	Proposal Projected Cost	Proposal Projected Revenue
7	9	Fitness Portfolio	FIT5000 Virtual Reality Trainer	<div style="width: 25%; background-color: green;"></div>	<div style="width: 25%; background-color: red;"></div>	<div style="width: 25%; background-color: red;"></div>	<div style="width: 25%; background-color: red;"></div>	<div style="width: 25%; background-color: red;"></div>	<div style="width: 25%; background-color: green;"></div>	349,567,174.75	671,000,000	4,411,321,200
8	9	Fitness Portfolio	FIT3100 Cardio-Fitness Incline Treadmill	<div style="width: 25%; background-color: red;"></div>	<div style="width: 25%; background-color: yellow;"></div>	<div style="width: 25%; background-color: green;"></div>	<div style="width: 25%; background-color: red;"></div>	<div style="width: 25%; background-color: red;"></div>	<div style="width: 25%; background-color: yellow;"></div>	109,218,665.66	1,015,000,000	1,782,995,200
12	12	Fitness Portfolio	SUPREMO5000 Series Eco-Drive Fitness Watch	<div style="width: 25%; background-color: red;"></div>	<div style="width: 25%; background-color: yellow;"></div>	<div style="width: 25%; background-color: red;"></div>	<div style="width: 25%; background-color: green;"></div>	<div style="width: 25%; background-color: red;"></div>	<div style="width: 25%; background-color: green;"></div>	197,110,948.48	399,000,000	1,764,000,000
13	7	Fitness Portfolio	FIT3000 Cardio-Fitness Incline Treadmill	<div style="width: 25%; background-color: yellow;"></div>	<div style="width: 25%; background-color: green;"></div>	<div style="width: 25%; background-color: green;"></div>	<div style="width: 25%; background-color: green;"></div>	<div style="width: 25%; background-color: red;"></div>	<div style="width: 25%; background-color: green;"></div>	228,029,307.96	536,000,000	2,357,708,800

Refresh - Print - Export



Implement Designs

- Ensure Data Integrity
 - Single source of truth
 - Workflows to assure business processes
 - Data quality assurance rules
 - Hub and spoke ingestion and publication of items
- Simplify transition from engineering to delivery



Enterprise Item Record

- Extensible
- Federated
- Secure

The screenshot displays the 'Edit Item' page for 'WT500502 (000)'. The page features a 3D CAD model of a wind turbine assembly on the left. On the right, a metadata panel lists the following details:

- Item: WT500502
- * Description: Wind Turbine Main Assembly
- Item Class: WT Assembly
- Approval Status: Approved
- Completeness Score: (empty field)
- Created By: KEVIN.SCHOTT

Below the image is a file browser showing 'Wind Turbine Assembly.jpg' with navigation arrows. At the bottom, a horizontal menu includes: Overview, **Specifications**, Structures, Attachments, Associations, Relationships, Categories, Quality, and History.



Data Governance

Validate

Auto-generate

Auto-classify

Standardize

Approve

De-duplicate

The screenshot displays the Oracle Data Governance console interface for editing an impact analysis. The title bar reads "Edit Impact Analysis: Sentinel Servers - Check for Warranty & Small HDDs". The main content area is divided into three summary cards: "Impact" showing 6 impacted and 22 nonimpacted items; "Rule Type" showing 4 assignment and 2 validation rules; and "Actionable" showing 6 ready and 0 need corrections items. Below these cards is a toolbar with "Actions", "View", and "Detach" options, along with "Severity" and "Rule Name" filters. A table lists the impacted items with columns for Item Number, Description, Attribute Name, Value, Severity, User Message, and Edit Rule. The table shows six items, all with a severity of "Warning" (yellow triangle icon). The first two items have a message "Warranty must be linked to item". The remaining four items have a message "300 GB HDD updated to 750 GB HDD - To Update remove Draft on Rule".

Item Number	Description	Attribute Name	Value	Severity	User Message	Edit Rule
AS89160	Sentinel Power ...			Warning	Warranty must be linked to item	
AS89165	Sentinel Power ...			Warning	Warranty must be linked to item	
AS89030	Sentinel Power ...	Mass Storage	300-GB 750 GB	Warning	300 GB HDD updated to 750 GB HDD - To Update remove Draft on Rule	
AS89045	Sentinel Power ...	Mass Storage	300-GB 750 GB	Warning	300 GB HDD updated to 750 GB HDD - To Update remove Draft on Rule	
AS89060	Sentinel Power ...	Mass Storage	300-GB 750 GB	Warning	300 GB HDD updated to 750 GB HDD - To Update remove Draft on Rule	
AS89090	Custom Sentinel...	Mass Storage	300-GB 750 GB	Warning	300 GB HDD updated to 750 GB HDD - To Update remove Draft on Rule	

Columns Hidden 8



Item Structures & Compatible Units

The screenshot displays a software interface with a search bar at the top left. Below it is a tree view of item structures. The root item is 'WT000500 Wind Turbine with Tower 500'. It branches into several sub-items, each with a quantity and a start date. The sub-items include 'WT000502 Wind Turbine Assembly 500', 'WT000203 Control/Generator Assembly', 'WT000107 Control/Generator Assembly - HP', and several other components like 'Generator - HP', 'Control System', 'Nacelle', 'Control/Generator Assembly - Std', 'Rotor Assembly', 'Drive Assembly (CM)', 'Yaw Drive', and 'Tower'.

Item	Replaces	Item Description	Item Sequence	Start Date	End Date	Quantity
WT000500		Wind Turbine with Tower 500				
WT000502		Wind Turbine Assembly 500	30	8/9/17 9:39 AM		
WT000203		Control/Generator Assembly	30	8/9/17 9:48 AM		
WT000107		Control/Generator Assembly - HP	30	8/9/17 9:51 AM		
WT000107		Generator - HP	30	8/9/17 9:53 AM		
WT000107		Control System	60	8/9/17 9:53 AM		
WT000107		Nacelle	90	8/9/17 9:53 AM		
WT000108		Control/Generator Assembly - Std	60	8/9/17 9:51 AM		
WT000123		Rotor Assembly	60	8/9/17 9:48 AM		
WT000240		Drive Assembly (CM)	90	10/25/17 9:13 AM		
WT000180		Yaw Drive	120	10/25/17 9:13 AM		
WT000164		Tower	60	8/9/17 9:39 AM		



Project Driven Supply Chain for Utilities



Project-Driven Supply Planning

Load material demands by Project and Task

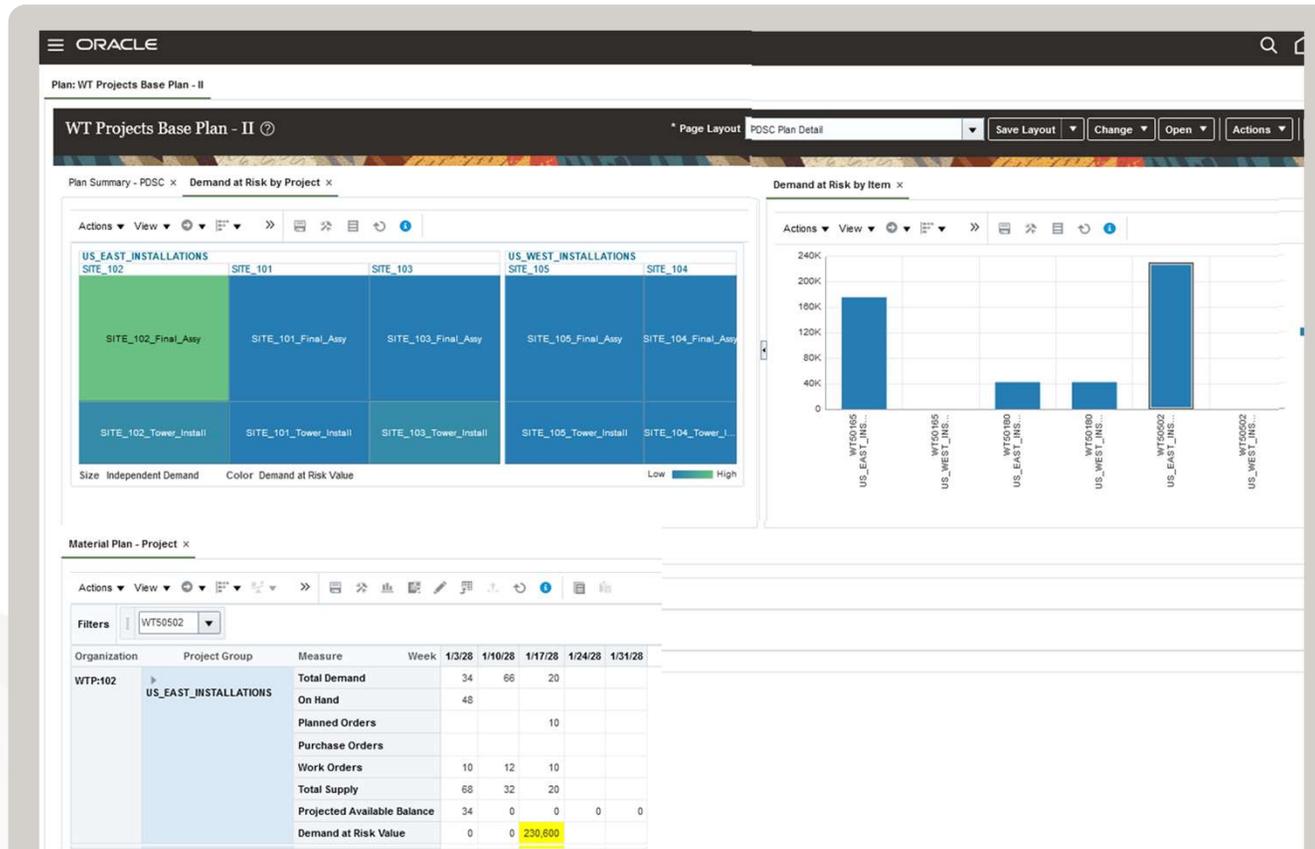
Reserve supplies for Project demands

Analyze the plan using Project attributes

Auto-Release orders for execution with Project and Task references



Insight across projects



Project Driven Supply Chain for Utilities



Designed For Change. Built For You.

BUY NOW

Automate Purchasing

- Create requisitions and purchase orders
- Create project commitments
- Relieve commitments upon receipt



Designed For Change. Built For You.

Engage with Suppliers

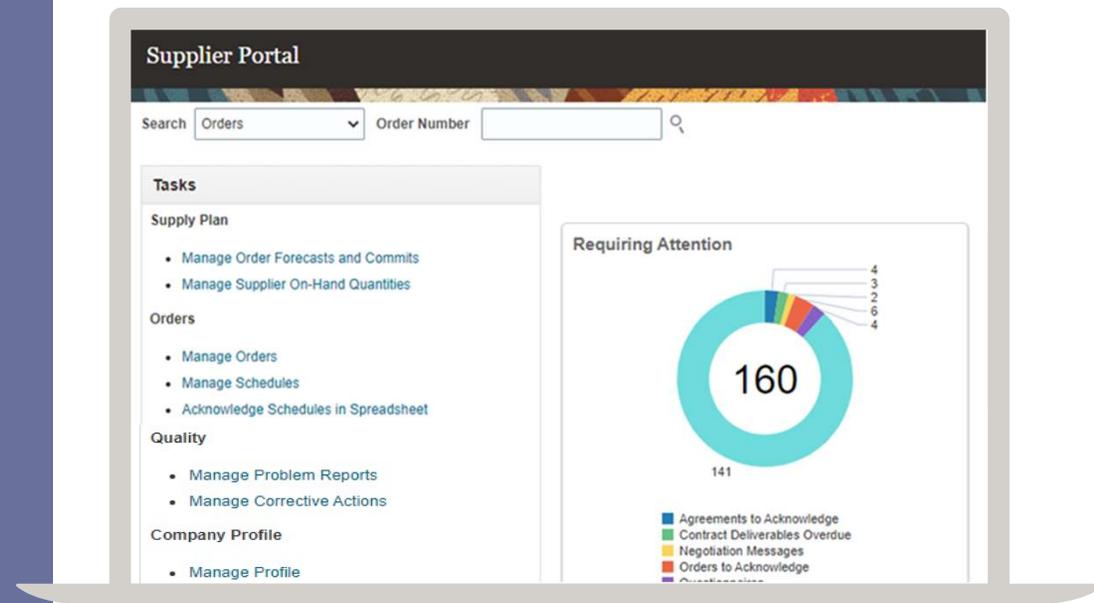
Supplier Qualification and Self-Service Onboarding

Sourcing

Engineering Collaboration

Planning Collaboration

Document & Track Project Procurement Deliverables



Enterprise Quality Management



Project Driven Supply Chain for Utilities



Track Inventory by Project

Complete visibility inventory by Project

Reserve common material for project tasks

Transfer materials

- Site to site
- Project to Project

Support multiple cost methods simultaneously

- GAAP
- FERC
- Joint Ventures
- IFRS

Manage Item Quantities ?

▶ **Advanced Search**

Search Results ?

View Item Quantity By:

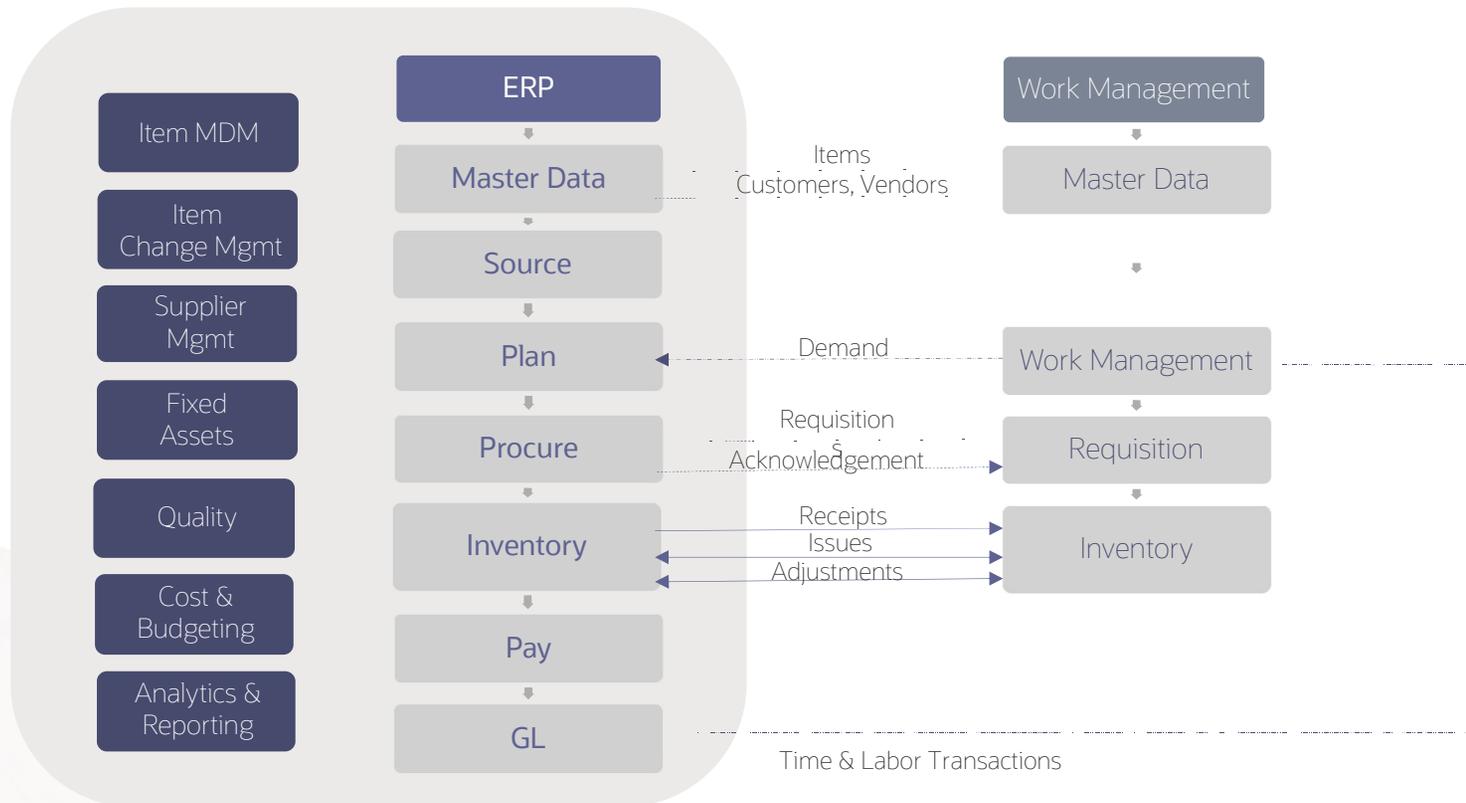
Actions View View Item Availability

Item	Item Description	Quantity			UOM Name
		On Hand	Receiving	Inbound	
Item WT000170 ☆	Resin	11,620			lb
Organization 102		11,620			lb
Project PDSC1001		750			lb
Project PDSC1011		1,000			lb
Project PDSC1007		500			lb
Project Common		9,370			lb



Manage the 'Seam'

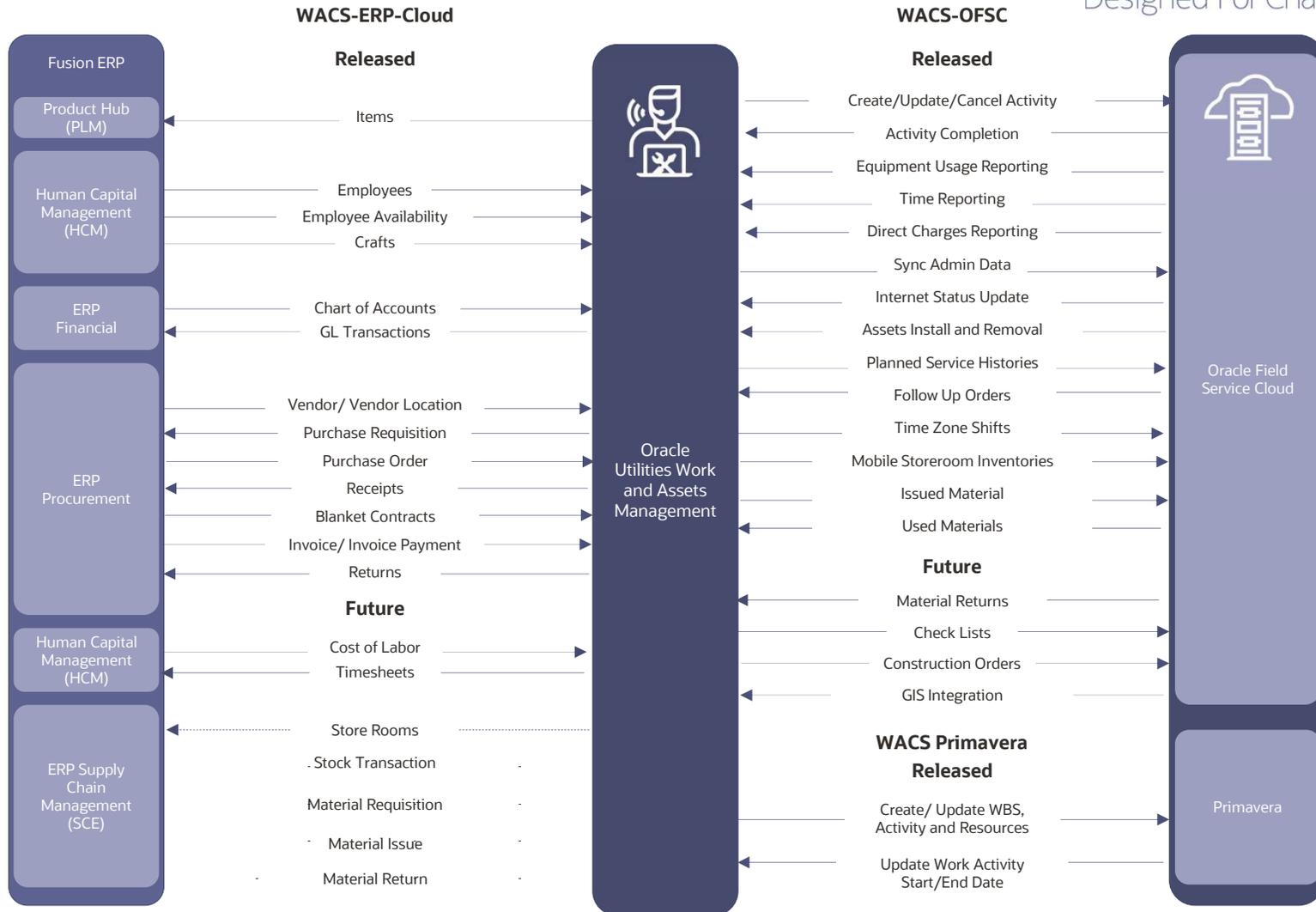
Work Management Reference Architecture



Unified Single Architecture

— Real Time
 Near Real Time
 - - - - - Periodic





Project Driven Supply Chain for Utilities

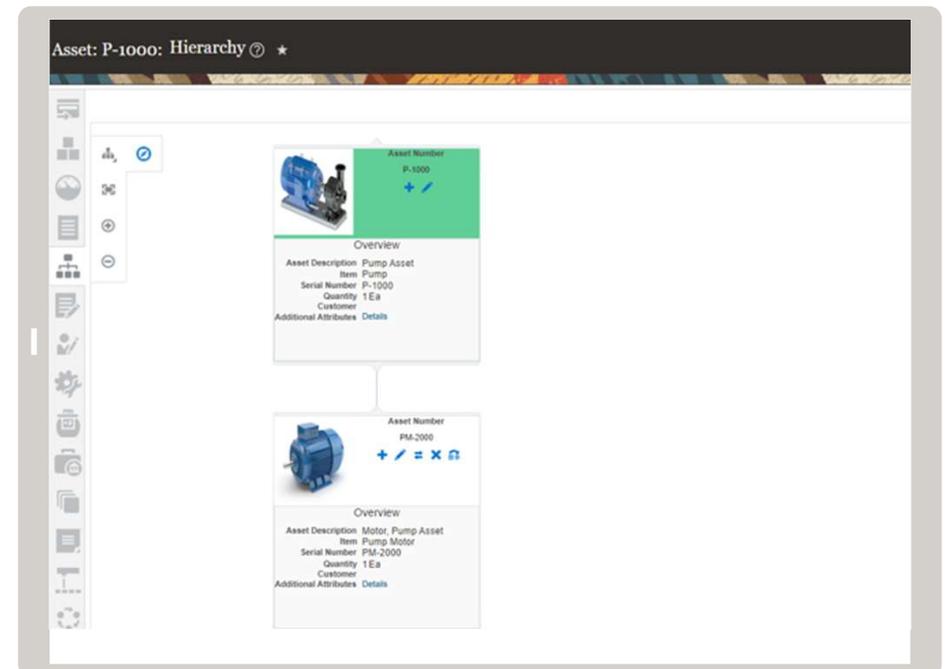


Manage Assets

Automate:

- Capitalization of Assets from Project
- Creation of Assets from Purchase Orders and Fabrication work

View Asset Timeline and Genealogy



Project Driven Supply Chain for Utilities



Project Business Unit: US1 Business Unit
 Project Manager: All
 Project Organization Name: All
 Project Type: All
 Project Name: All

Project Cost

Billable Cost

Billable Cost %

Non Billable Cost

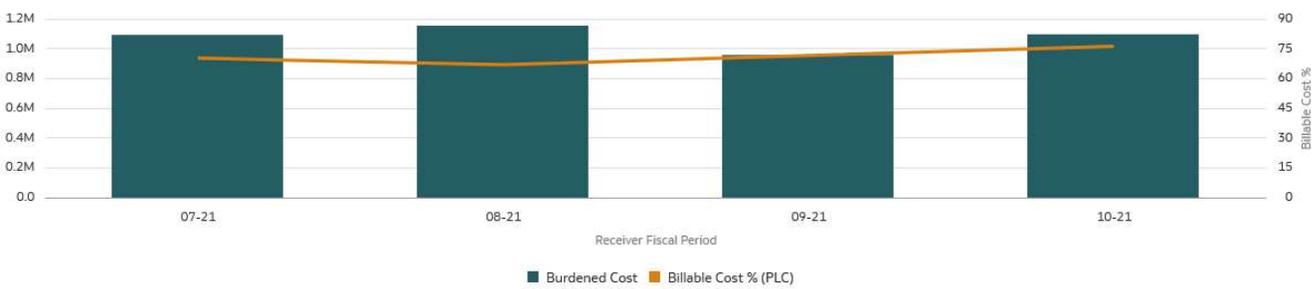
\$38,288,600.51

\$27,255,471.05

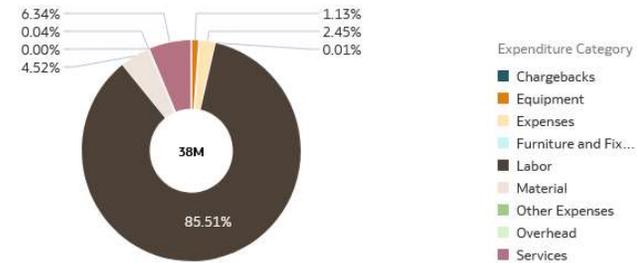
71.18

\$11,033,129.46

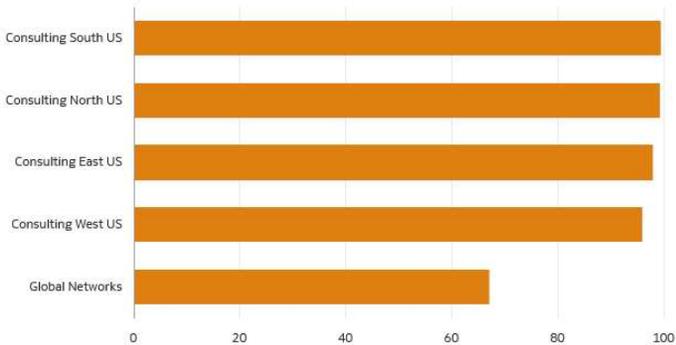
Project Costs TTM



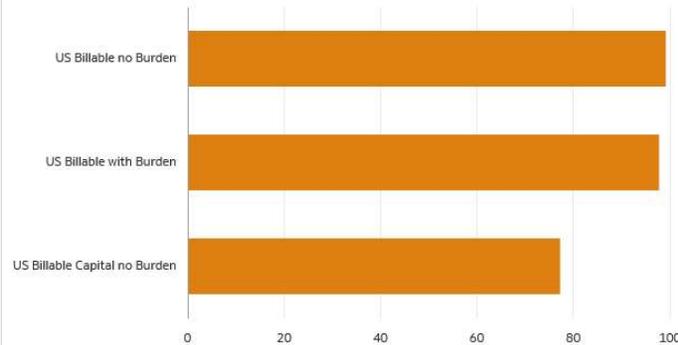
Project Cost By Expenditure Category



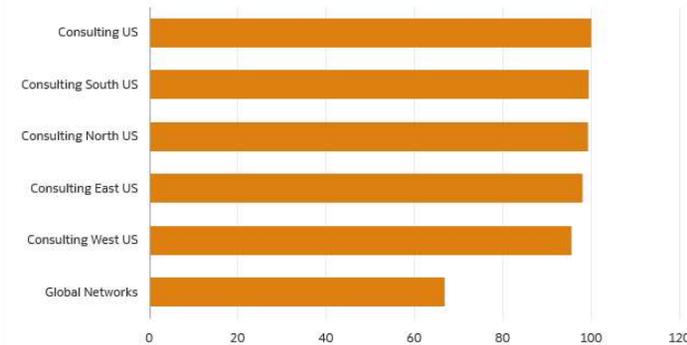
Top 10 Billable Cost % by Project Organization



Top 10 Billable Cost % by Project Type



Top 10 Billable Cost % by Expenditure Organization

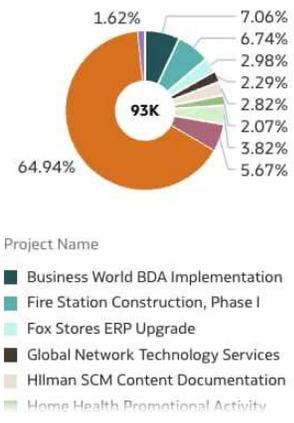


Project Asset Analysis

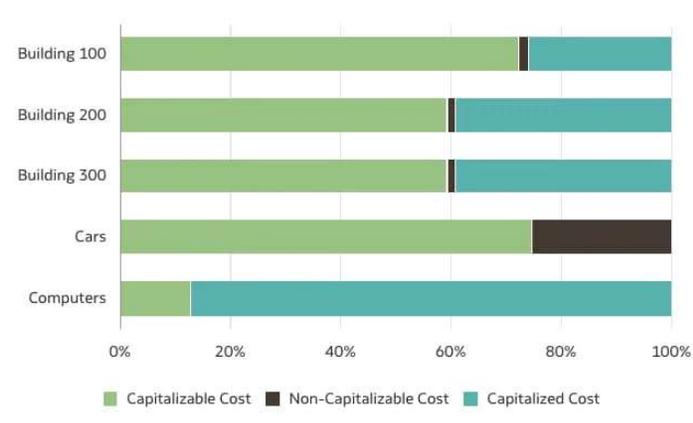
Top Asset Cost



Top Projects by Asset Cost



Asset by Capitalized Cost, Non-Capitalizable Cost, Capitalizable Cost



Project Assets Cost Details

Project Name	GL Account Combination	Current Amount	Grouped CIP Cost	Assigned CIP Cost	Unassigned CIP Cost	Capitalized Cost
Business World BDA Implementation	01-000-7710-0000-000	2,400.00	0.00	0.00	0.00	2,400.00
Business World BDA Implementation	01-000-7820-0000-000	230.00	0.00	0.00	0.00	230.00
Business World BDA Implementation	01-140-9110-0000-000	1,025.00	0.00	0.00	0.00	1,025.00

Asset Cost Details

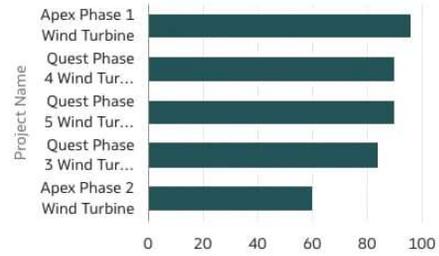
Asset Name	Project Name	Current Amount	Capitalizable Cost	Non-Capitalizable Cost	Capitalized Cost	Actual Asset Units
Building 100	Fire Station Construction, Phase I	20,086.46	60,259.41	1,490.00	21,833.12	1
Building 200	Fire Station Construction, Phase I	20,086.46	60,259.41	1,490.00	40,122.92	1
Building 300	Fire Station Construction, Phase I	20,086.49	60,259.41	1,490.00	40,172.98	1
Bulldozer	Centrifuge Installation	1,000.00	20,350.00	66.00	0.00	1

Project Number (2)

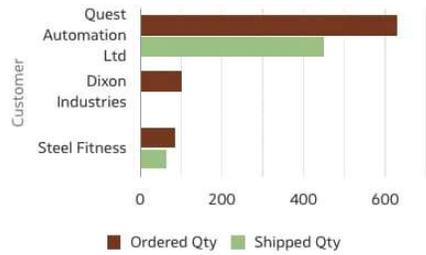
Project-Driven Supply Chain Analysis

Order Fullfilment and Inventory

Open Sales Orders by Project Name

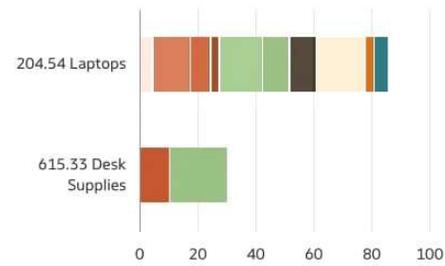


Shipped & Ordered Qty by Customer

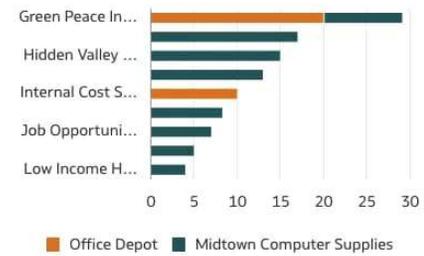


PO & Requisitions

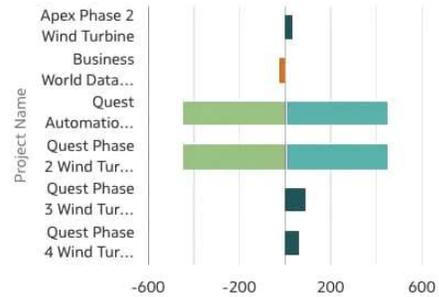
Open PO by Purchasing Category, Project



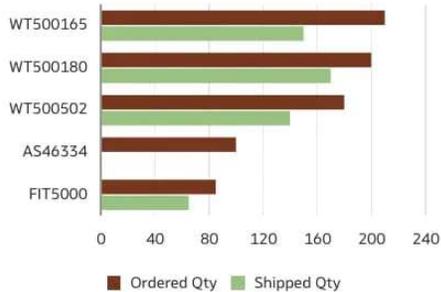
Open PO Qty by Project, Supplier



Project Inventory Transaction Qty



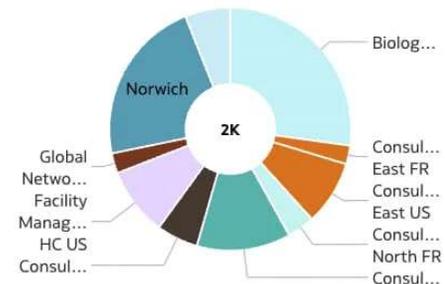
Qty Ordered, Shipped Qty by Item

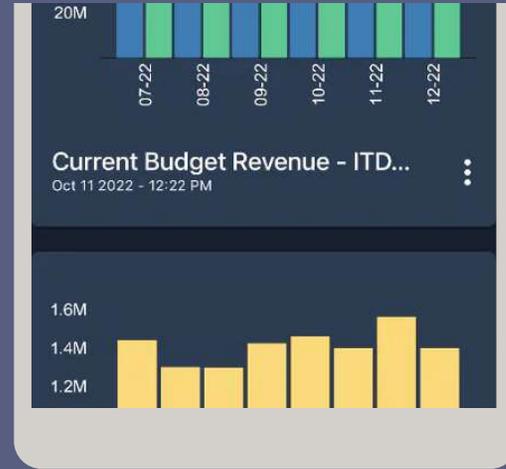
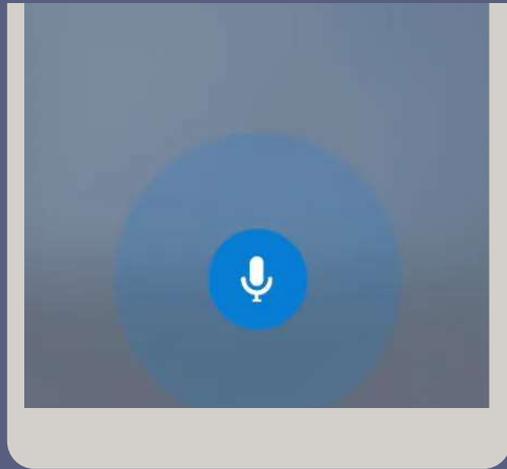


Requisition Qty by Project Name



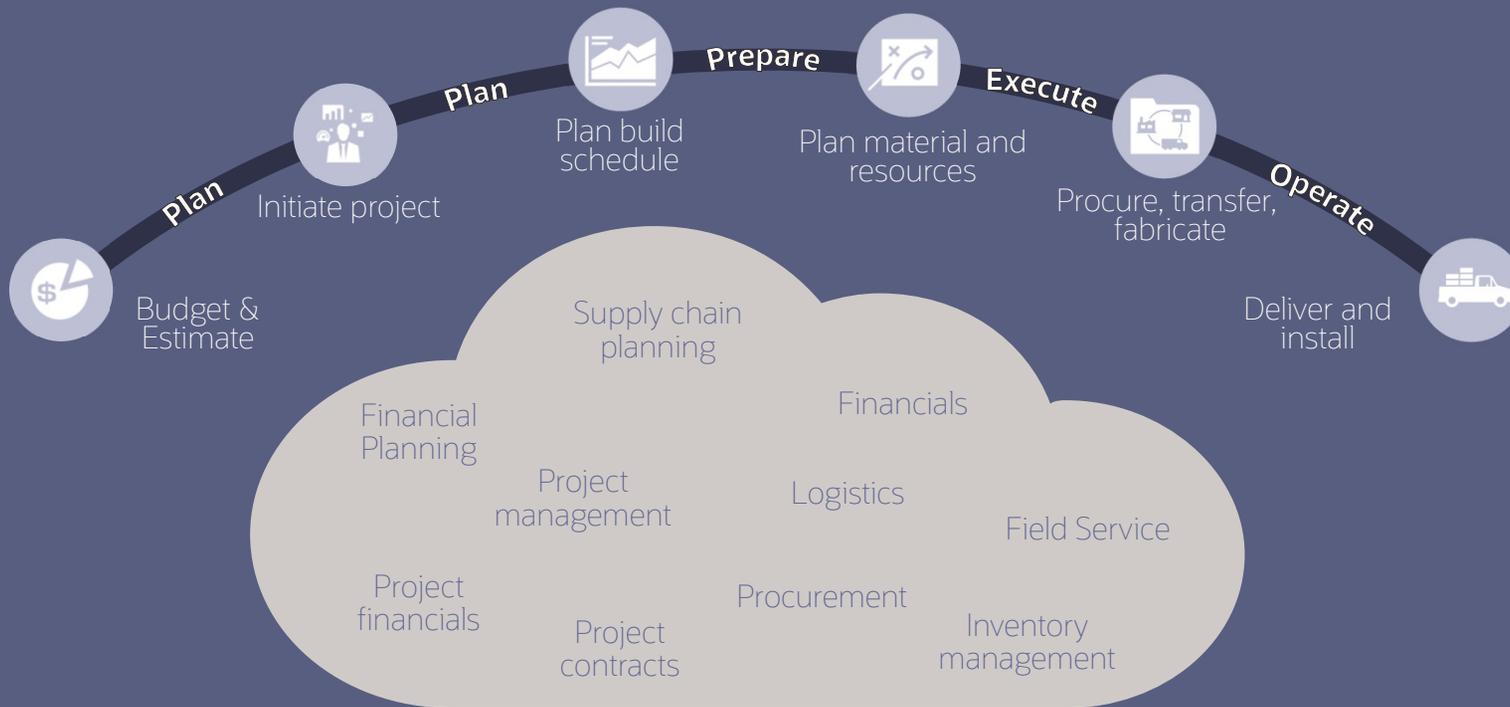
Requisition Qty by Expenditure Org





Project-Driven Supply Chain

Integrated plan-to-commission solution for constructing fixed assets



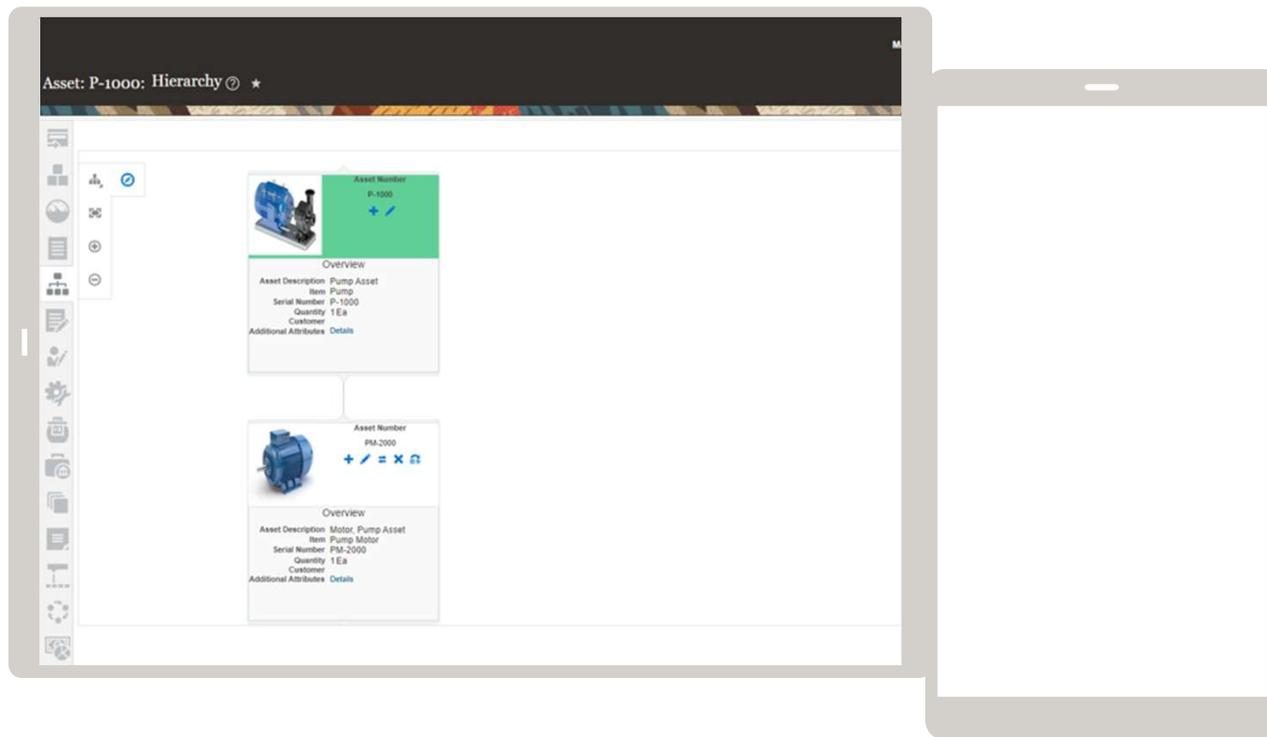
Thank you

Designed
For Change.

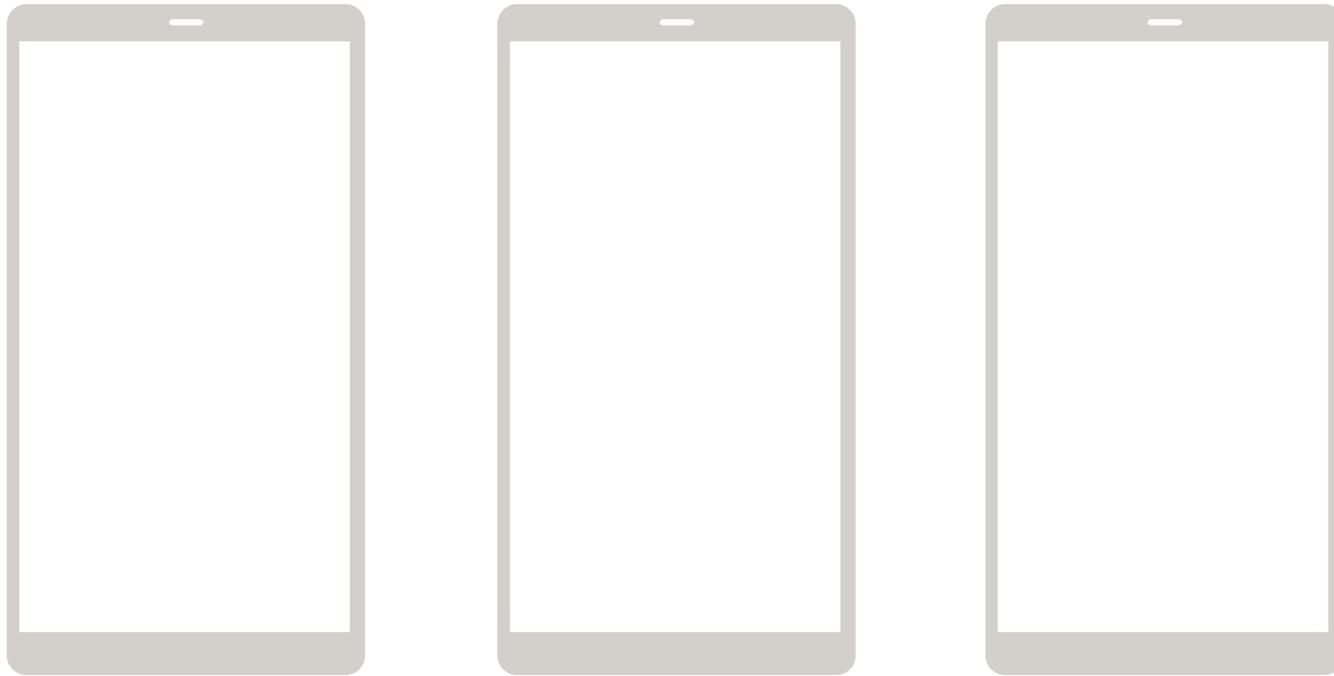
Built For You.



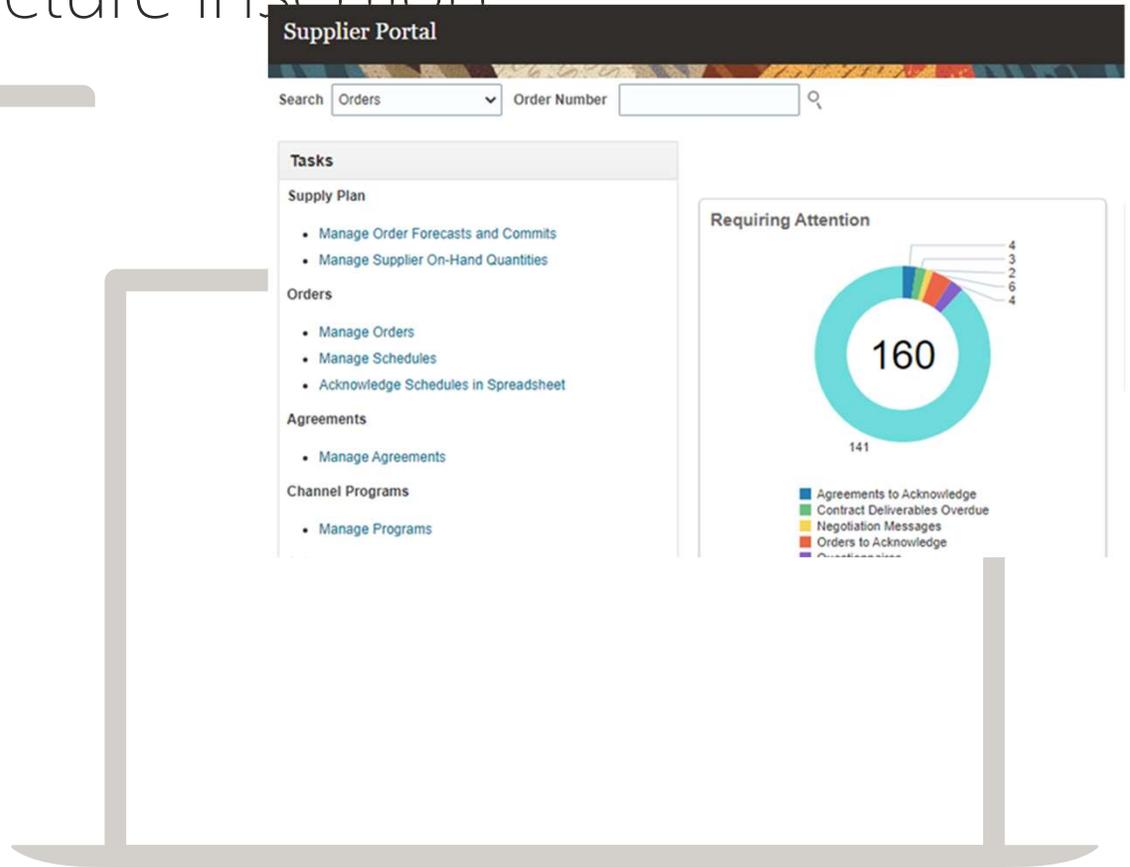
Title + Phone, Tablet picture insertion



Title + 3 Phones picture insertion



Title + Tablet, Monitor picture insertion



Device Shells

Designed For Change. Built For You.



Device Shells

Designed For Change. Built For You.



Icons

Computers



Date & Time



Communication



People

