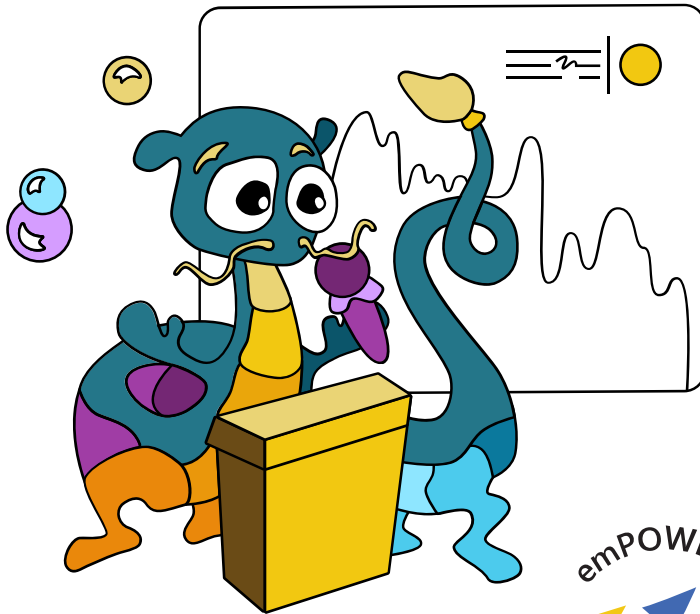


Striking the Balance: Leveraging Power Platform and Business Acumen to Drive Value in ExxonMobil Upstream Operations

Oct 4th, 2023 | 9am PCT



Huy Tran
Product Manager
ExxonMobil - Upstream IT



Sacha Abinader
Managing Director
Accenture North America Energy



Microsoft Power Platform **CONFERENCE**

Get *Uhova* for Microsoft Power Platform Conference - Fall 2022



Microsoft Power Platform Conference - Fall 2022 Official Event App

- Explore the **professional profiles** of event speakers and attendees
- Send **in-app messages** and **exchange contact info**
- **Network and find attendees** with common affiliations, educations, shared networks, and social profiles
- Receive **update notifications** from organizers
- Access the **event agenda**, GPS guidance, maps, and parking directions at your fingertips



The event invitation code is:
MPPCFall22

Upskilling for Career Switchers

POWER BI

POWER AUTOMATE

POWER APPS

POWER VIRTUAL AGENTS

POWER PAGES

A brand-new upskilling program for people from non-technical backgrounds, to enable them to get better career opportunities.

Through guided curriculum, self-paced learnings, instructor-led training, and hands-on exercises, participants will learn new skills while being supported by the Power Platform community and Microsoft product teams.

aka.ms/MSPowerUp



JOIN THE COMMUNITY

POWER BI

POWER AUTOMATE

POWER APPS

POWER VIRTUAL AGENTS

POWER PAGES

Discover the difference being part of the Microsoft Power Platform Community can make for you.

With the latest News & Announcements, Forums, Microsoft-empowered User Groups, events, and more, you'll find out why we believe in the power of community. Whether you're a super user or just getting started, discover why we believe **#CommunityRocks!**

aka.ms/JointheCommunity



Striking the Balance: Leveraging Power Platform and Business Acumen to Drive Value in ExxonMobil Upstream Operations

Huy Tran

ExxonMobil – Product Manager
Upstream IT

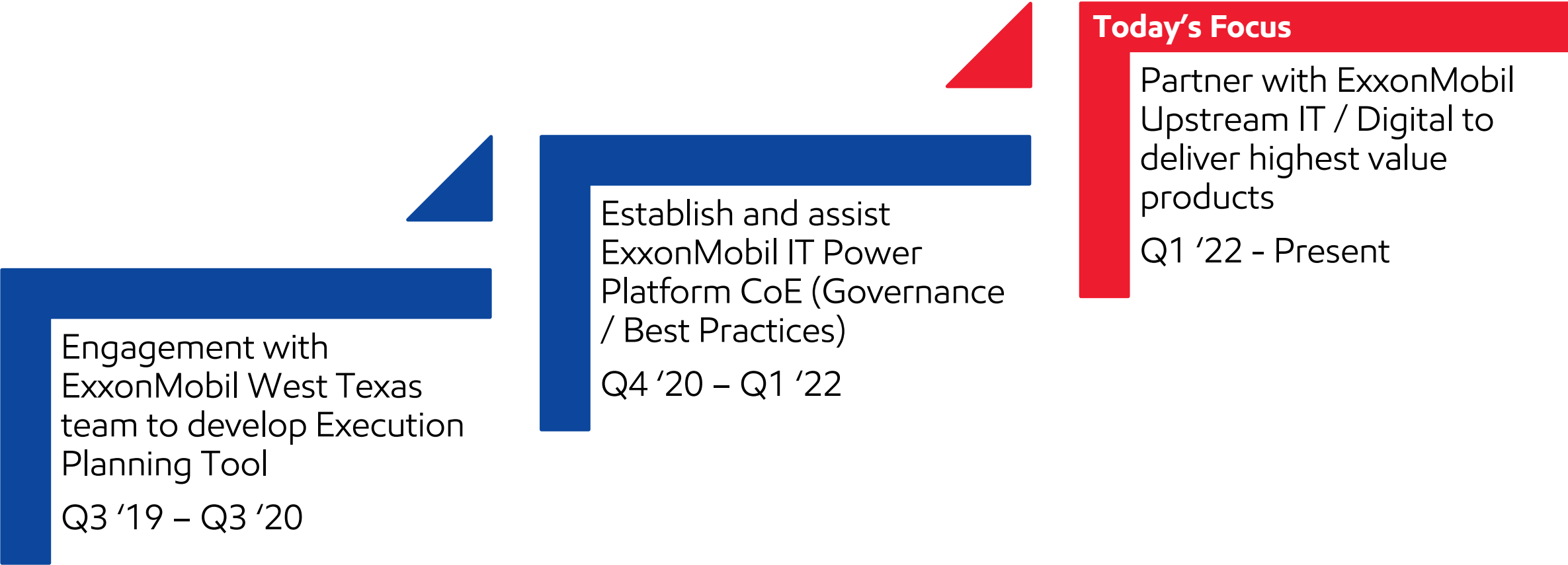


Sacha Abinader

Accenture – Managing Director
North America Energy



Accenture / Avanade History with Power Platform delivery at ExxonMobil



Engagement with
ExxonMobil West Texas
team to develop Execution
Planning Tool
Q3 '19 – Q3 '20

Establish and assist
ExxonMobil IT Power
Platform CoE (Governance
/ Best Practices)
Q4 '20 – Q1 '22

Today's Focus

Partner with ExxonMobil
Upstream IT / Digital to
deliver highest value
products
Q1 '22 – Present

Our Delivery Principles / Guidelines



USER CENTERED DESIGN



ARCHITECTING FOR SCALE

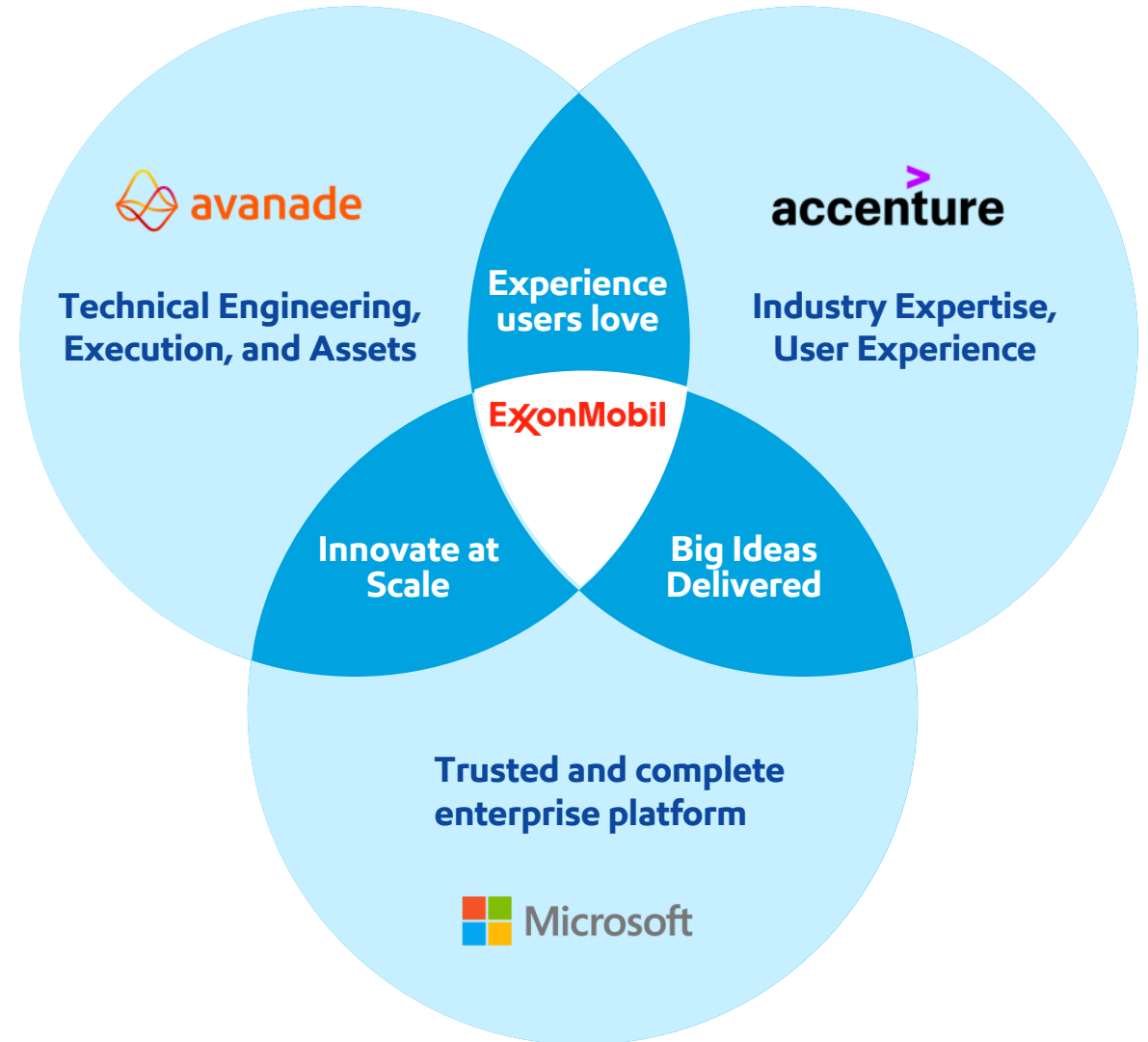


DATA AS A COMPETITIVE ASSET



GENERATE MOMENTUM FOR DIGITAL INNOVATION

Delivered by



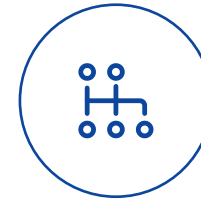
Address business mandates with Power Platform



**DRIVING
BUSINESS
VALUE WITH
DIGITAL**



**ENABLE SAFE
AND
RELIABLE
OPERATIONS**



**PREVENT
SILOED
PROCESSES
AND DATA**



**DIGITALIZE
AND
STANDARDIZE
PROCESSES**

ExxonMobil

Businesses

Upstream

Product Solutions

Low Carbon Solutions

Value chains with better line-of-sight to markets

Centralized Organizations (CO)

Technology & Engineering

Global Projects

Global Operations & Sustainability

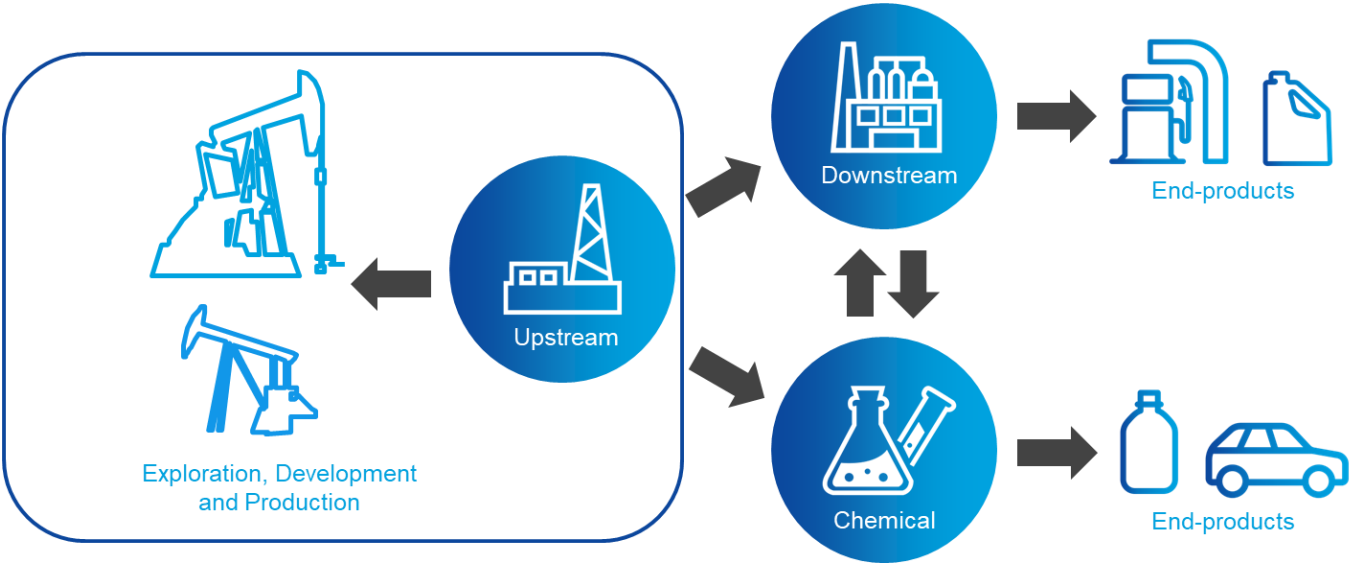
Corporate Functions

Global Trading

Supply Chain

Global Business Solutions

Centralized Organizations deliver full corporate capabilities to value chains



Business Digital Products

Mission

Collaborate closely with business partners and process advisors to *identify* and *accelerate* the delivery and scalability of *high-value* digital business solutions, while *empowering* people

Goals



Connected Data and
Automation



Close Business
Engagement



Sustainment and
Operation



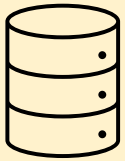
DIY Empowerment

Product Development

Product Operations

Technology

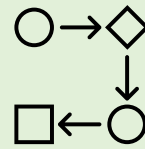
Common Use Cases at ExxonMobil



Data entry &
management

(anywhere Excel is used)*

*Excel is not a database



Manual Workflows

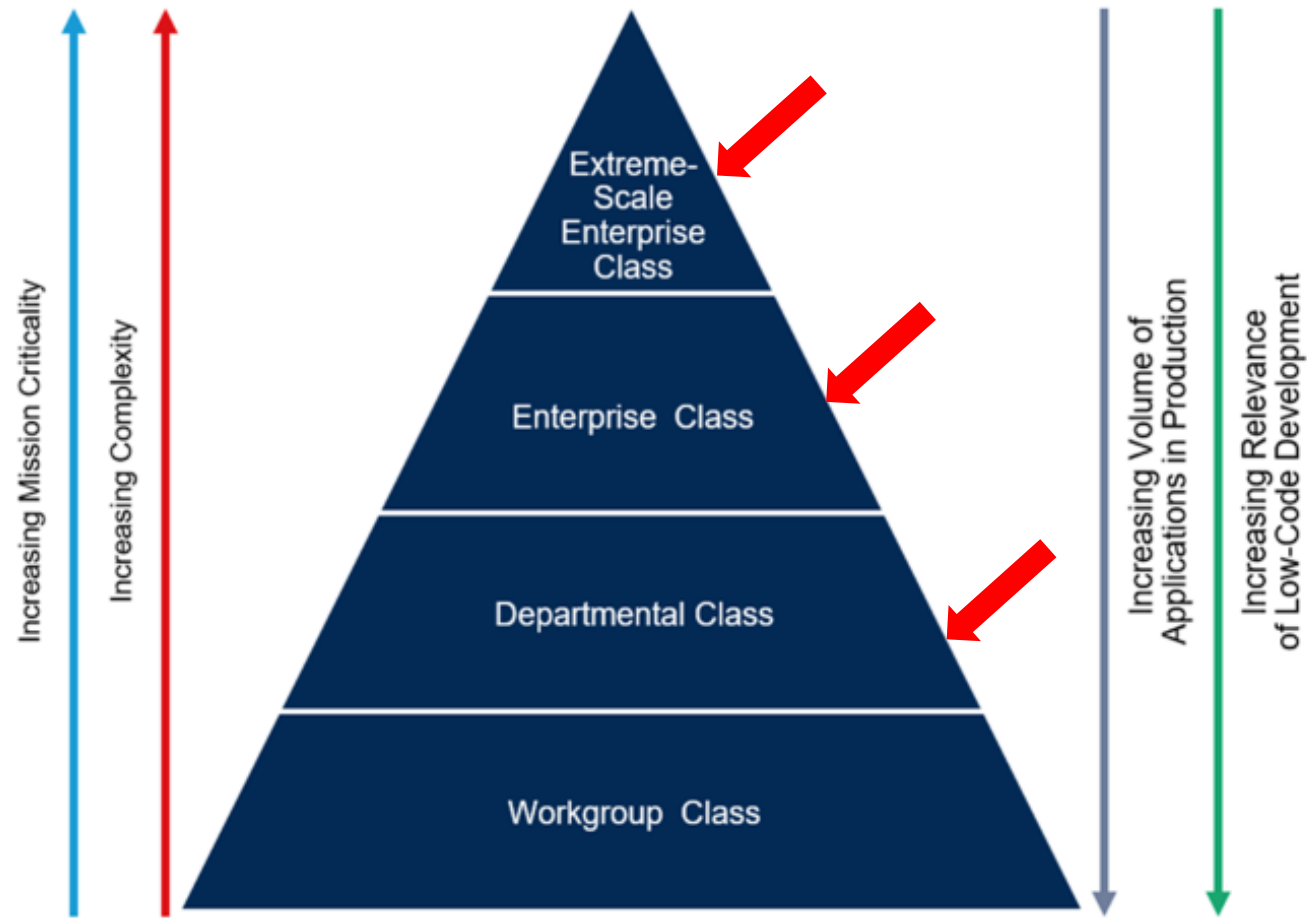


Integration with other
Microsoft products

Power BI
Azure DevOps
SharePoint
Azure Data Explorer

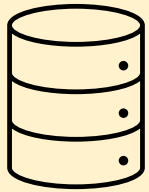
We Challenge Perception on Low Code in ExxonMobil

Pyramid of Applications



Source: Gartner, Inc.

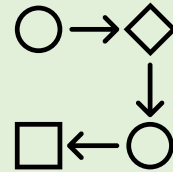
Products Highlights



Enterprise Annual Maintenance Plan

as part of

ExxonMobil
Maintenance Transformation



Production Optimization Opportunity and Risk Management

as part of

ExxonMobil
Production Optimization
Transformation



Digital Shift Handover

prevents

Process Safety Incidents

Risk-based Work Selection (RBWS) with zero-based budget development approach

- Risk scenarios is essential part of AMP
- Central playground with common repository with security, transparency and accountability

Pain Points

[illegible]

Digital Annual Maintenance Plan

Power Apps | AMP Business Administration

SANDBOX

Home Recent Pinned Annual Maintenance Plan AMP Items AMP Item Dashbo... BCR Dashboard Stewardship Dash...

Organization Departments Business Teams Units Control Centers Cost Centers FIMS Criticalities FIMS Programs Equipment Equipment Types Admin Reviewers Field Visibility Sett... Option Set Config... Site Specific Fields Budget Categories Equipment Group... Functional Locatio... MAT Codes Plant Sections Production Impac... Site Field 1 Site Field 2 Site Field 3

Active AMP Items - Saved

Search (Alt + Q)

File Home Insert Draw Page Layout Formulas Data Review View Help Table Design

Undo Paste Cut Copy Format Painter Clipboard Font Alignment Number Styles Cells Editing

Generated 10/1/2023, 1:19 PM

AMP Unique ID	Functional Location	Line Item Title	Maintenance Cost (\$K)	Review Status	Item Contact	Modified On	FIMS Program	FIMS Criticality	Maint
2024_Australia_96268	AUMA-643	MLA Yrly LVO leak rate test	0.00			8/8/2023 15:25	09 Electrical Systems	A	80181
2024_Australia_96265	AUBM-824	36 mth HV C/B -Fused Contactor	0.00			8/8/2023 15:25	15 Personal Protective Equipmer A	A	80196
2024_Australia_96250	AUBB-905	Inflatable Life Jacket Service	0.00			8/8/2023 15:25	15 Personal Protective Equipmer A	A	80179
2024_Australia_96249	AUMK-61	144 mth Internal Inspection	0.00			8/8/2023 15:25	15 Personal Protective Equipmer A	C	80195
2024_Australia_96247	AUBM-824	36 mth HV Transformer Visual In	0.00			8/8/2023 15:25	09 Electrical Systems	A	80196
2024_Australia_96242	AUTU-837	TUG-270 Circuit Breaker Testing	0.00			8/8/2023 15:25	09 Electrical Systems	A	80178
2024_Australia_96241	AUTU-833	TUG-250 Circuit Breaker Testing	0.00			8/8/2023 15:25	09 Electrical Systems	A	80178
2024_Australia_96234	AUTU-833	TUG-260 Circuit Breaker Testing	0.00			8/8/2023 15:25	09 Electrical Systems	A	80178
2024_Australia_96232	AUTU-404	PSO Man Overboard Kit Inspecti	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80196
2024_Australia_96231	AUTU-404	PSO Man Overboard Kit Inspecti	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80196
2024_Australia_96230	AUTU-404	PSO Stretcher Inspection	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80186
2024_Australia_96228	AUTU-404	PSO Fire Prot Suits, Coats Blinks	0.00			8/8/2023 15:23	13 Fire Fighting Equipment	A	80186
2024_Australia_96227	AUTU-404	PSO Man Overboard Kit Inspecti	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80196
2024_Australia_96225	AUTU-404	PSO Stretcher Inspection	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80186
2024_Australia_96223	AUTU-404	PSO Fire Prot Suits, Coats Blinks	0.00			8/8/2023 15:23	13 Fire Fighting Equipment	A	80186
2024_Australia_96222	AUTU-405	PSO Height Recovery Equipment	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80186
2024_Australia_96221	AUTU-404	PSO Man Overboard Kit Inspecti	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80196
2024_Australia_96219	AUTU-404	PSO Stretcher Inspection	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80186
2024_Australia_96217	AUTU-404	PSO Fire Prot Suits, Coats Blinks	0.00			8/8/2023 15:23	13 Fire Fighting Equipment	A	80186
2024_Australia_96216	AUTU-406	PSO Breathing Apparatus Inspecti	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80186
2024_Australia_96215	AUTU-405	PSO Height Recovery Equipment	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80186
2024_Australia_96214	AUTU-404	PSO Man Overboard Kit Inspecti	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80196
2024_Australia_96212	AUTU-404	PSO Fire Prot Suits, Coats Blinks	0.00			8/8/2023 15:23	13 Fire Fighting Equipment	A	80186
2024_Australia_96211	AUTU-404	PSO Stretcher Inspection	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80186
2024_Australia_96210	AUTU-406	PSO Breathing Apparatus Inspecti	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80186
2024_Australia_96207	AUTU-404	PSO Fire Prot Suits, Coats Blinks	0.00			8/8/2023 15:23	13 Fire Fighting Equipment	A	80186
2024_Australia_96206	AUTU-405	PSO Height Recovery Equipment	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80186
2024_Australia_96205	AUTU-406	PSO Breathing Apparatus Inspecti	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80186
2024_Australia_96203	AUTU-404	PSO Man Overboard Kit Inspecti	0.00			8/8/2023 15:23	15 Personal Protective Equipmer A	A	80196

Calculation Mode: Automatic Workbook Statistics

Give Feedback to Microsoft

100% +

Save Return

Page 1

Enterprise Annual Maintenance Plan

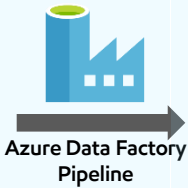
DATA

Average 30K maintenance items / site / year



16 Upstream Sites
30 Product Solutions Sites

Kepler
snowflake
Upstream Data Foundation



Dataverse

AMP Dashboard



REPORT

APPLICATION



AMP Admin

AMP Users



AMP Automation Flows



Notifications – Review Process

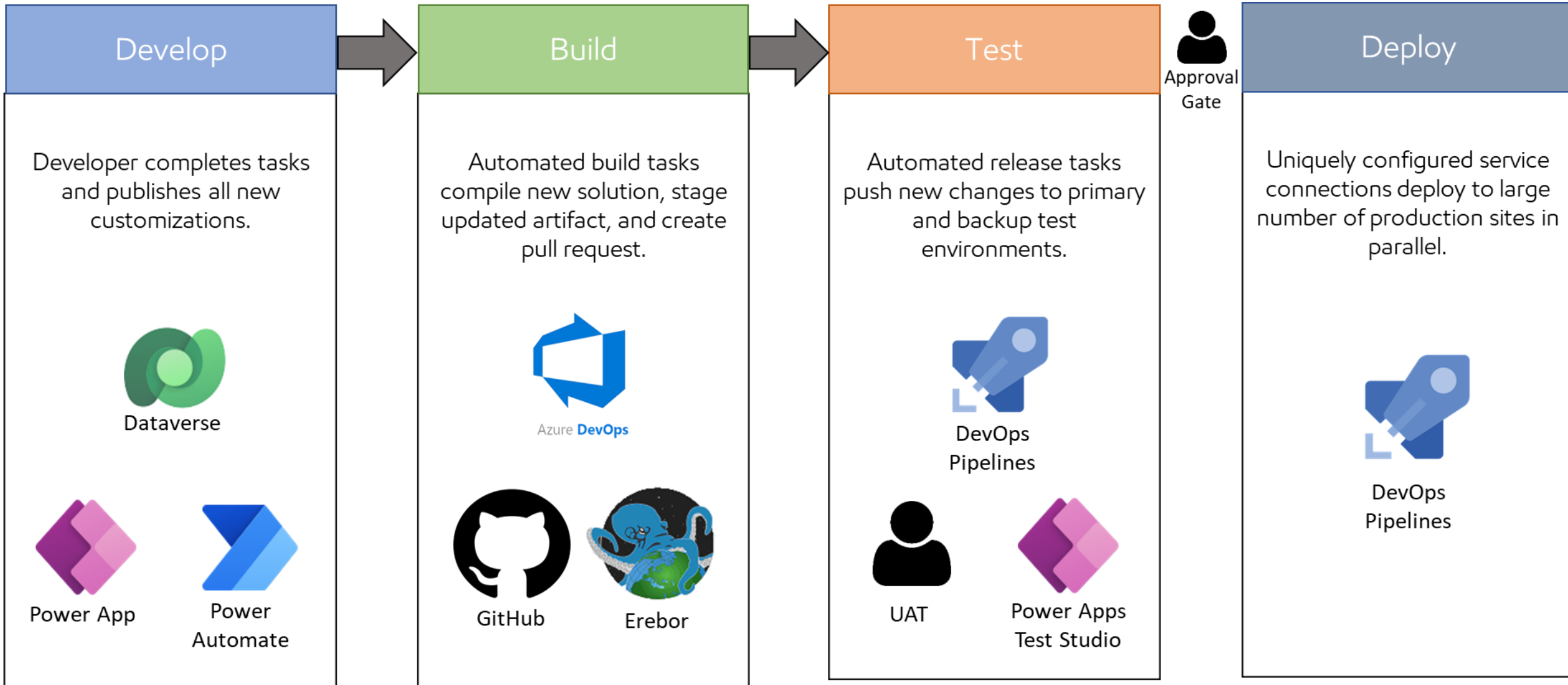


Calculation

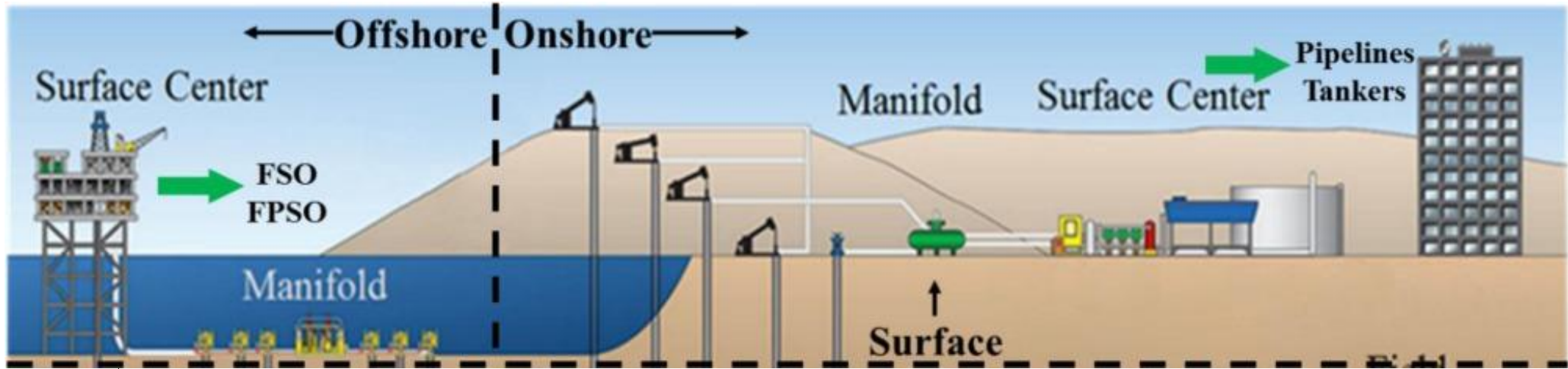
AUTOMATION

Annual Maintenance Plan CI / CD Process

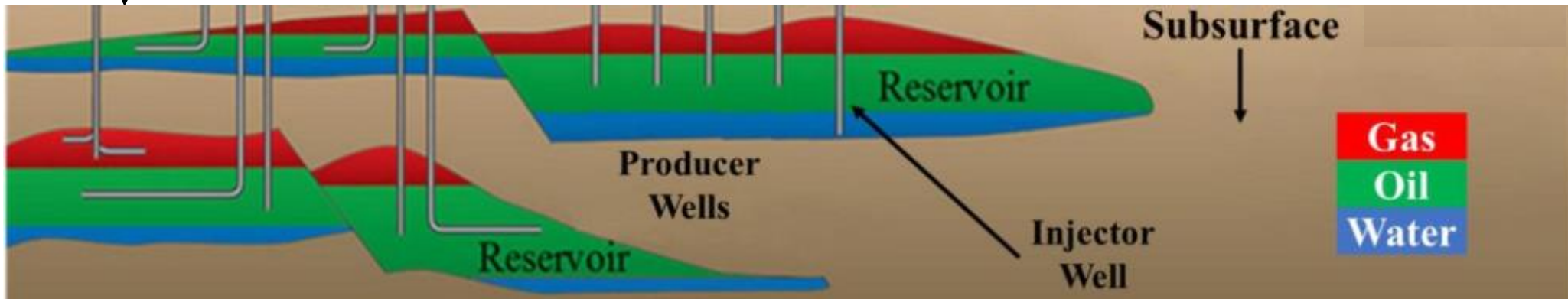
for 1 dev – 4 test – 46 prod environments



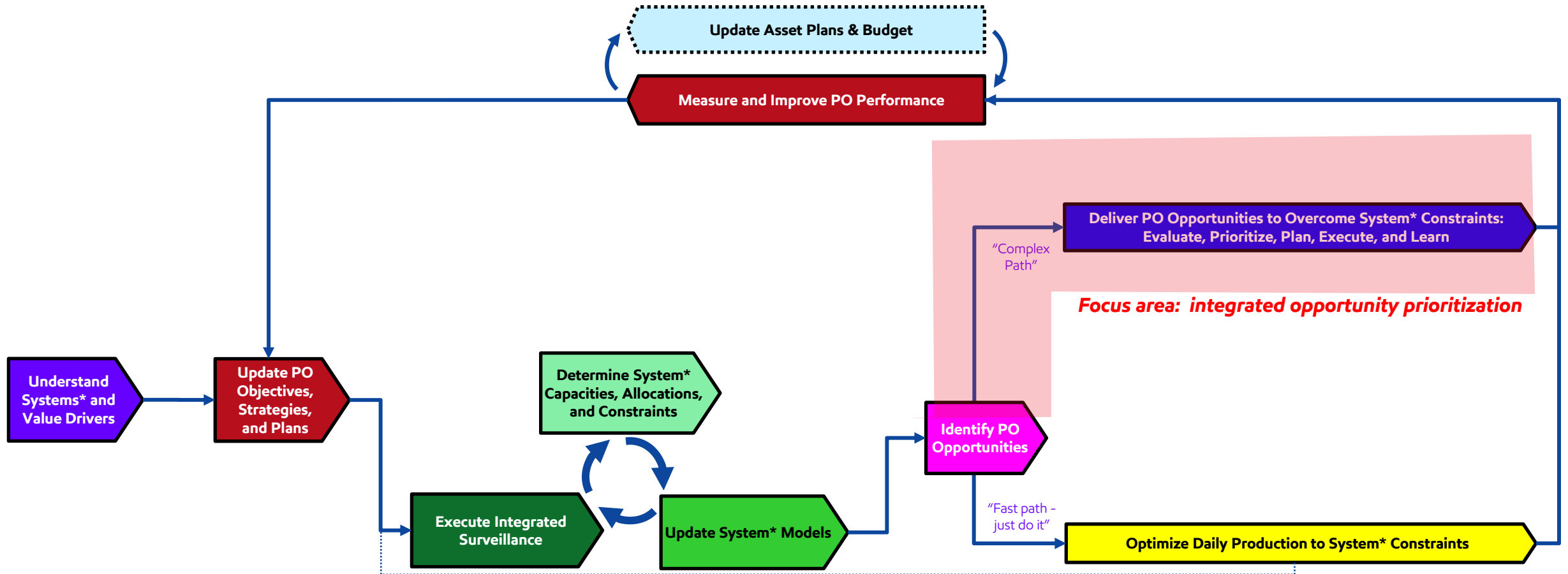
Production Optimization



4 – 5 miles underground (Subsurface)



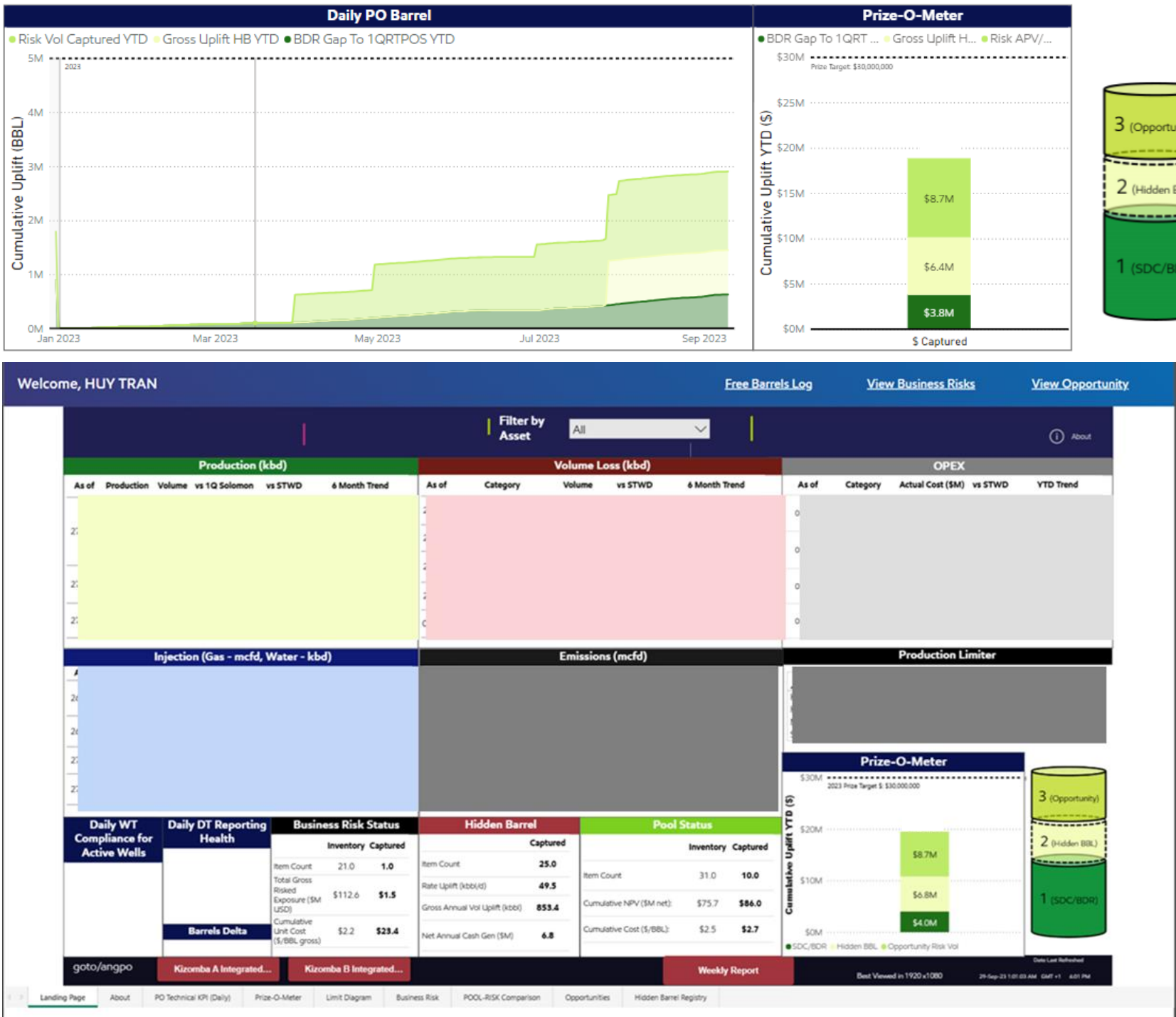
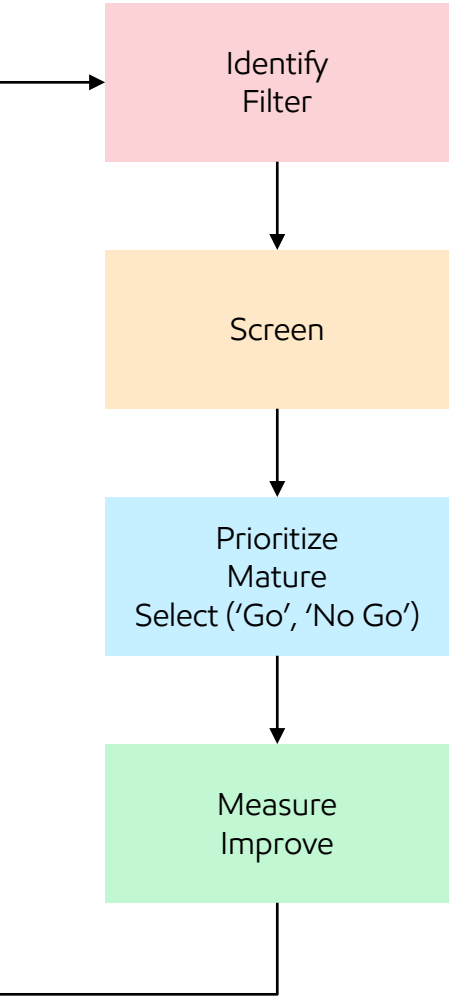
Production Optimization (PO) Workflow



by Removing Constraints from Reservoir to Sales Point



Prize-O-Meter



“POOL” Gallery and Form

Opportunity Register										
Search Opportunity ID, Opportunity Title										
Filter										
Add New Opportunity										
Home Refresh										
<input type="checkbox"/>	Opportunity ID	Opportunity Status	Asset	Opportunity Complexity	Opportunity Category	Opportunity Title	Team Members	Start Up Timing	UDC / UPC (\$/bbl)	PVR
<input type="checkbox"/>	0162	Executed		Medium	Facilities - optimization	test-status-onhold	Morris, Esther /C	3/23/2023	\$ 1016.53	123
<input type="checkbox"/>	0147	Executed		Low	Wells - optimization	DIK205, DIK119 & DIK109 choke optimization	Tran, Huy V	2/27/2023	\$ 0	0
<input type="checkbox"/>	0002	Maturing for approval		Medium	Facilities - repair	Test-Prasuna-OpplD	Morris, Esther /C	2/22/2023	\$ 1000	123
<input type="checkbox"/>	0150	Approved for execution		Low	Facilities - repair	Test Title3 - Prasuna	Morris, Esther /C	3/23/2023	\$ 500	200
<input type="checkbox"/>	0007	Screened		Medium	Facilities - optimization	Test-Demo-Prasuna-UNITesting Edit				
<input type="checkbox"/>	0003	Idea		Medium	Wells - intervention	CHC-110 coiled tubing clean out & Mazeflo installation				
<input type="checkbox"/>	0004	Draft			Wells - intervention	CHC-234 MODU injector clean out				
<input type="checkbox"/>	0006	Approved for execution		Medium	Facilities - optimization	test test test				
<input type="checkbox"/>	0008	Draft			Wells - repair	HUN-114 GL line blockage repair				
Clear Selected Average of \$/bbl: 4370.48 Sum of NPV: 2026										

Opportunity Entry Form

Save Progress

Clear

General Opportunity Information

Initiator

X NABILLA BINTI ARIEF THAM

Source of Opportunity *

Opportunities

Asset *

Kiz-A

Opportunity Title *

test title

Opportunity Description *

test description

Well Type

Opportunity Category

Discipline

Opportunity Status *

Draft

Opportunity Evaluation

Cost Estimate Screening (\$M USD)

Estimated Risked Volume (KBO)

Estimated instantaneous gain (kbd)

UDC/UPC (\$/bbl)

NPV (\$M USD)

PVR

Start Up Timing

Opportunity Complexity

Team Members

Post Job Evaluation

Post Job Actual Gain (kbd)

Post Job Actual Spent (\$M USD)

Post Job Remarks / Lesson learnt

Date Closed

Submit Opportunity

Cost vs. Benefit Curve

Welcome, HUY TRAN

[Free Barrels Log](#)

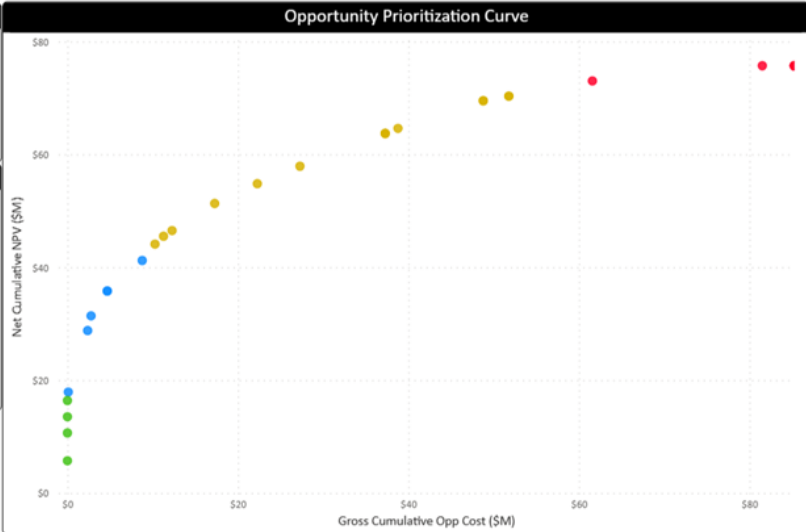
[View Business Risks](#)

[View Opportunity](#)

Opportunity/Business Risk Comparison

[←](#) Index

Asset	
Inventory	
Status	#
Maturing for approval	20
On Hold	20
Idea	19
Executed	10
Approved for execution	7
Screened	4
Total	80



Opportunity Register							
ID	Asset	Opportunity Title	Opportunity Status	Cost Estimate Screening (\$M USD)	NPV (\$M USD)	Estimated Risked Volume (KBO)	Estimated initial Production (KOEBO)
0099						0.00	0.00
0100						0.00	0.00
0129						8200.00	4.00
0101						0.00	0.00
0102						0.00	0.00
0104						0.00	0.00
0103						0.00	0.00
0105						0.00	0.00
0077						100.00	0.20
0067						1160.00	1.60
0169						1100.00	0.50
0107						790.00	0.10
0133						1100.00	0.20
0117						0.00	0.00
0122						700.00	2.00
0146						2100.00	1.50
0123						1100.00	2.50
0147	42.00	0.10					
Total				\$555.2	\$192.5	77704.00	62.69

Asset	
Inventory	
Status	#
In Progress	12
Approved	7
Open	2
Closed	1
Total	22



Risk Register							
ID	Asset	Risk Title	Status	Unmitigated Business Risk	Mitigation Cost (\$K)	BCR	Benefit
0012							0.00
0013							1.58
0063							4.66
0031							0.31
0034							1.81
0029							0.25
0043							0.20
0017							2.00
0032							0.08
0024							0.80
0064							13.03
0061							45.72
0062							5.45
0036							0.15
0044							0.31
0023							0.22
0011							1.68
Total				114.04	38,581.00	288.99	104.42

Shift Handover

Case for Action

- Communication failures at shift handover result in 50% of Process safety incidents
- Handover processes were mostly manual (paper logbooks, email, verbal)
- Site handover practices deviate from Best Practice expectations
- Significant risk of miscommunication and relevant information being forgotten



50% of all operating mistakes happen in the first 30 minutes after a shift starts

A photograph of a spiral-bound notebook with an ExxonMobil Operations Daily Log form. The form is divided into sections: OPERATIONS TEAM, SAFETY, MAINTENANCE ACTIVITIES, and PRODUCTION SUMMARY. The PRODUCTION SUMMARY section contains handwritten notes and a table with columns for Time and Notes. The notes include: "Mol and booster seats OK", "G250 Diesel", "Meth day tank ↑", "A25 PA-14ed", "compressor discharge back pressure controller changed to 11.6", "oil receiver lined up", "P2490 c/o fixed and pump working", "A7 well tests entered", and "A7 → V600, A23 → V600 @ 20%".

Time	Notes
	Mol and booster seats OK
	G250 Diesel
	Meth day tank ↑
	A25 PA-14ed
	compressor discharge back pressure controller changed to 11.6
13:30	oil receiver lined up
	P2490 c/o fixed and pump working
	A7 well tests entered
	A7 → V600, A23 → V600 @ 20%

Australia



USA

Digital Shift Handover

- Standardize processes to significantly mitigate miscommunication and omitted / forgotten relevant information
- Enhance site safety, efficiency and reliability
- Leverage ADX high frequency data connector to capture facility equipment status at the time of handovers
- Rolled out at first Upstream site in Oct 2022.
 - 10,000+ handovers effectively exchanged by 130 operators

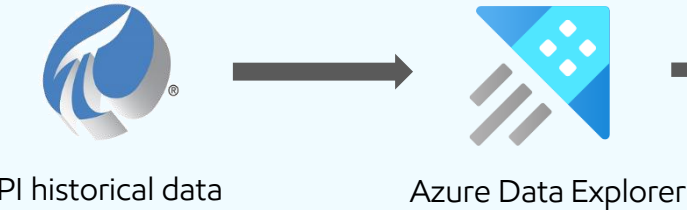
Benefits

- \$80K productivity gain
- \$10K downtime reduction.
- \$300K process safety incident prevention. Assumption of preventing on Tier 2 event @ 5K bbls production impact (using past incident in as a reference)
- Deploying to Angola and Nigeria by the end of 2023



Digital Shift Handover

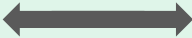
DATA



Dataverse



DSH Admin Portal

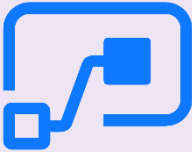


DSH Admin



DSH Users

APPLICATION



AMP Automation Flows



Export to PDF



Generate Handover Templates

AUTOMATION

Hitch Handover

Role: Supervisor

Area: LNGP Supervisor

Team: Shift 2

Shift: Day

Date: 09/29/23

HUY TRAN

Leave

Hitch Handovers

Search

My Hitch Handovers

<input type="checkbox"/> All	Period	Role	Area	Shift	Team	Priority	Status	Tags	Actions
<input type="checkbox"/>	8/23/23 -	Supervisor	LNGP Supervisor	Day	Shift 2		Accepted		
<input type="checkbox"/>	6/28/23 -	Supervisor	LNGP Supervisor	Day	Shift 2		Accepted		

Back-to-back Hitch Handovers

<input type="checkbox"/> All	Period	Prev Operator	Area	Shift	Team	Priority	Status	Tags	Actions
<input type="checkbox"/>	7/26/23 - 8/22/23	JAY M LAVAPO	LNGP Supervisor	Day	Shift 4		Accepted		



Role: Supervisor

Area: LNGP Supervisor

Team: shift 3

Shift: Day

Date: 09/29/23

HUY TRAN

Handover Priority

Train 1

PR 1:	Running
PR 2:	Running
MR 1:	Running
MR 2:	Running
MR 3:	Running
LNG HT:	3041.001
MR HT:	3037.32886
LGN Rundown M3/H:	1213.6554

GTG Bus A

1:	Closed
2:	Closed
3:	Closed
4:	Closed
5:	Closed
6:	Closed
7:	Closed

Utilities & Inlet

Power Export MW:	3.460996E-11
Dom Gas Str1 M3/H:	0
Dom Gas Str2 M3/H:	189.88031
Inlet Pressure kPag:	7523.18164

Train 2

PR 1:	Running
PR 2:	Running
MR 1:	Running
MR 2:	Running
MR 3:	Running
LNG HT:	3042.08643
MR HT:	3049.157
LGN Rundown M3/H:	1153.6272

GTG Status

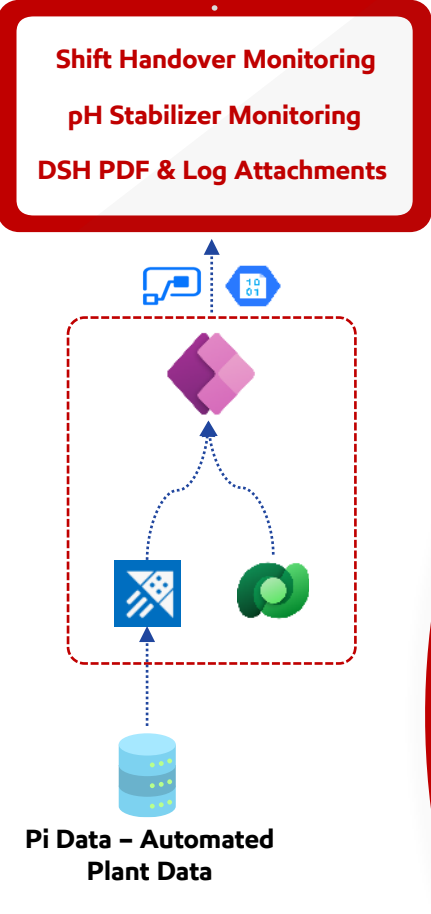
1:	Running
2:	Stopped
3:	Running
4:	Running
5:	Stopped
6:	Stopped
7:	Running

GTG Bus B

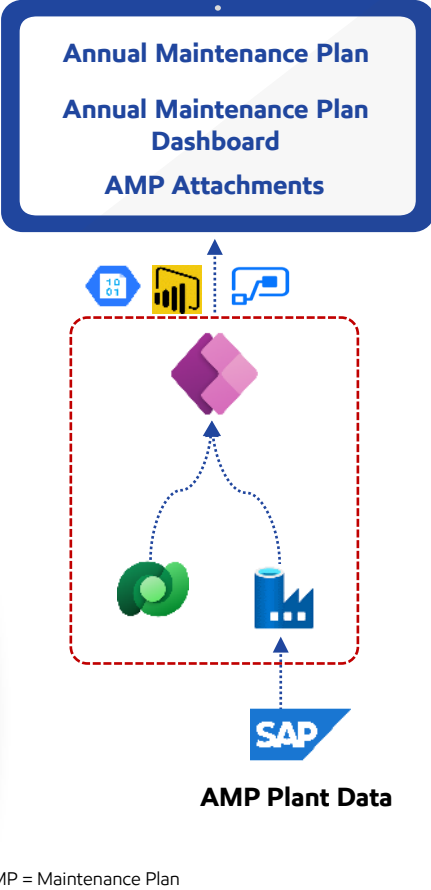
1:	OPEN
2:	OPEN
3:	OPEN
4:	OPEN

High Impact Digital Products

Digital Shift Handover (DSH)



Annual Maintenance Plan (AMP)



*MP = Maintenance Plan



Power Apps
App Dev



Power Automate
Process Automation



Microsoft Dataverse
Data Storage



Power BI
Dashboard & Reports



Azure Data Explorer
Data-exploration Service



Azure Data Factory
Data Integration Service



Azure Blob storage
File Storage

Keys to Success



**USER
CENTERED**



**BUILT FOR
AGILITY**



**DESIGNED
FOR SCALE**



**INNOVATION
MINDSET**



**ONE TEAM
MENTALITY**



**INDUSTRY
EXPERTISE**

Bringing the best to ExxonMobil

A Unique Partnership

As the #1 Microsoft strategic partner

we unlock the value of cloud and drive transformative business outcomes at speed and scale for our clients



20+

Years Accenture,
Avanade & Microsoft
Have teamed together



35K

Projects
delivered

10

Industries

Retail, CPG, Health, Banking,
Public, Automotive, CMT,
Energy, Utilities and CMT



6K+

Power Platform
Specialists



100K

Microsoft-skilled
resources

300+

Platforms, Assets and
Accelerators



20+

In this many
Industries



18x

Microsoft Alliance
SI Partner of the Year



2023 Low Code
Partner of the
Year

A 360° relationship developed over decades
to help clients achieve more with innovation

 **accenture**

Unrivaled business and
industry insights

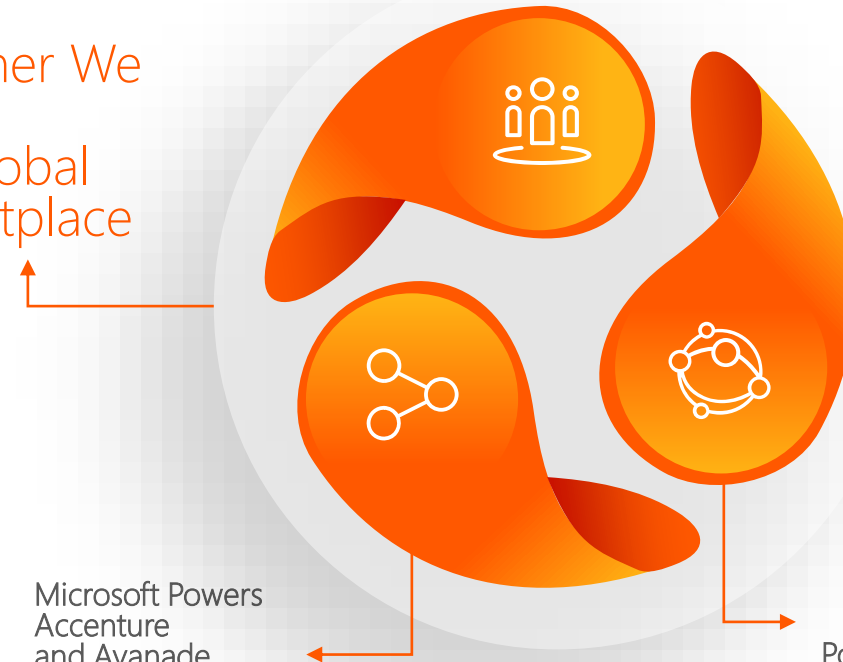
 **avanade**

Deepest Microsoft skills
and innovation

 **Microsoft**

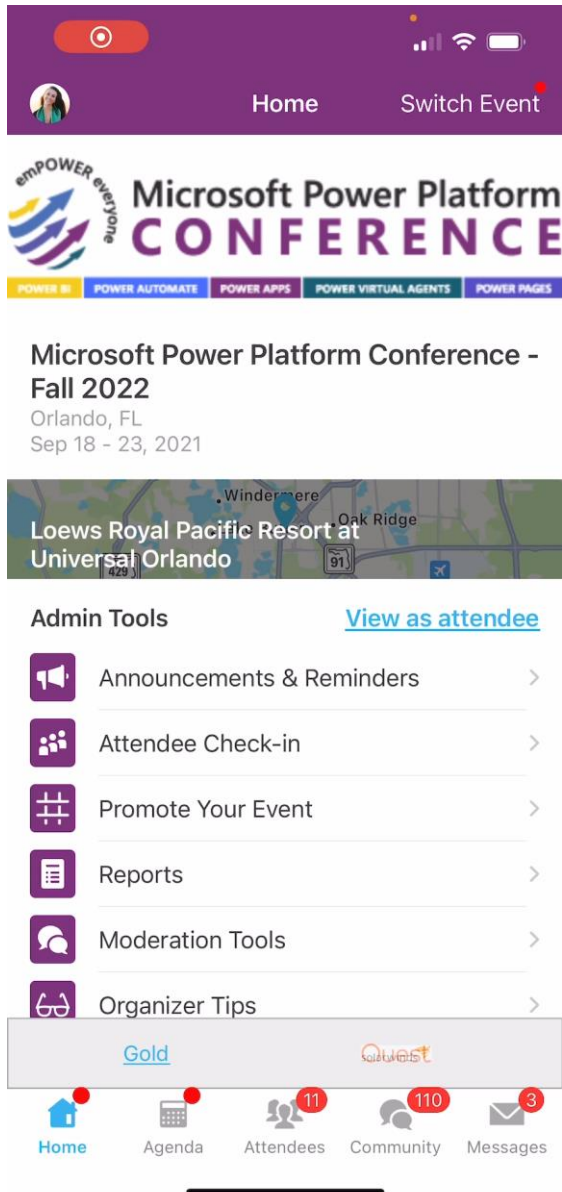
Trusted and complete
enterprise platform

Together We
Power
the Global
Marketplace



Microsoft Powers
Accenture
and Avanade

Accenture
and Avanade
Power Microsoft



Session Feedback Surveys

In the pursuit of making next year's Microsoft Power Platform Conference even better, we really want to hear your feedback about this session.

Here's How -

- *Simply go to the Whova App on your smartphone*
- *Go to the Microsoft Power Platform Conference event*
- *Scroll down on the homepage to 'Additional Resources' and click 'Surveys'.*
- *Click 'Session Feedback'.*
- *Scroll down to click on this session title.*
- *Complete the session feedback survey.*
- *Finally, click 'Submit'*

Microsoft Azure
+ AI Conference
CO-PRODUCED BY
Microsoft & devIntersection

Azure Data Conference
POWERED BY
Azure Data Community & Azure Org Conf

devIntersection
Conference
POWERED BY
Microsoft & NextGen

