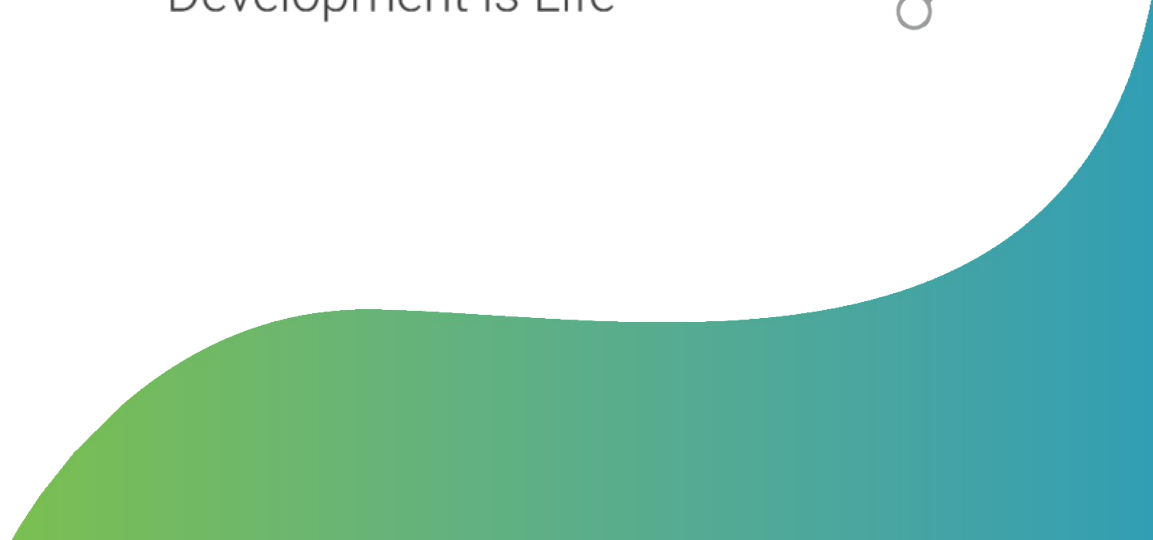
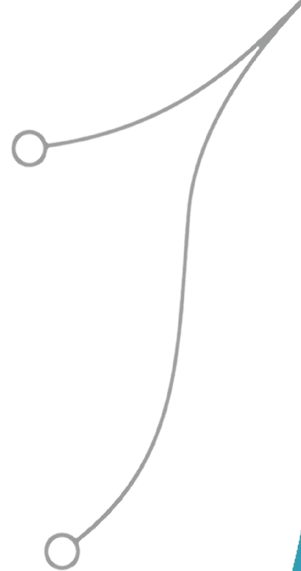




Dualroots

Development is Life



CONSOLE

More than a Digital Dashboard



CONSOLE

More than a Digital Dashboard

Data Validation

Data Analytics

Access from anywhere

Compare Reports

Multiple Connectors

KPI

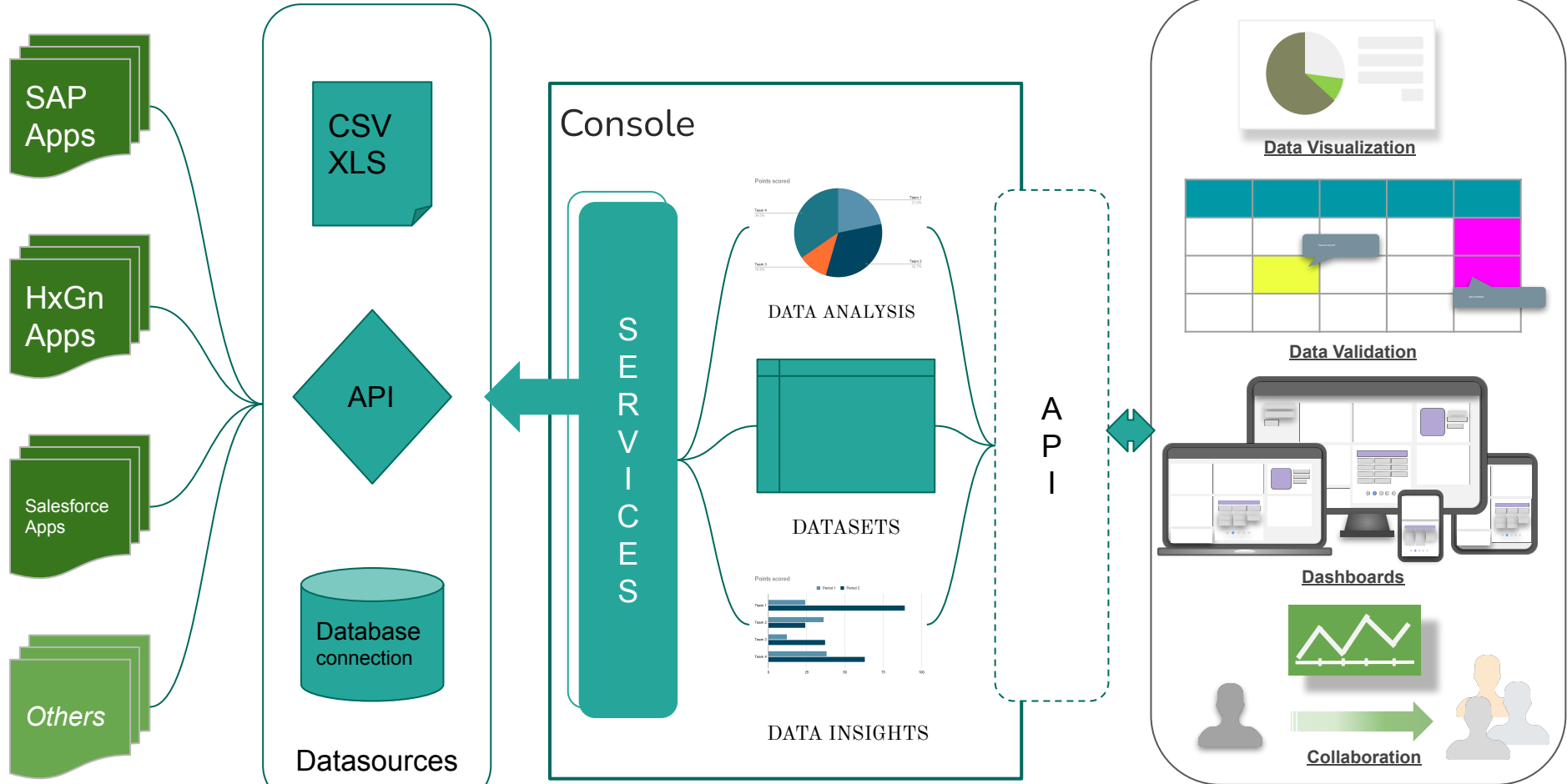
Project Reviews

IoT Dashboards

Multiple Dashboards

Access Control

Dualroots Console



Owner Operators Data Handover

Complications

- Manual data validation requires significant resources, including manpower, time, and financial investment, due to challenges associated with ensuring data quality and completeness.
- Issue with Data Quality and Completeness
- Handling Multiple Data Handovers
- Keep track of the changes during the project's life cycle.
- Connect to Multiple applications and Systems
- Issue tracking
- MOC Visualizations



Solution

Single application for Data Validation, Business Reviews, KPI, Data Analytics, MOC, Project Reviews and Operations.

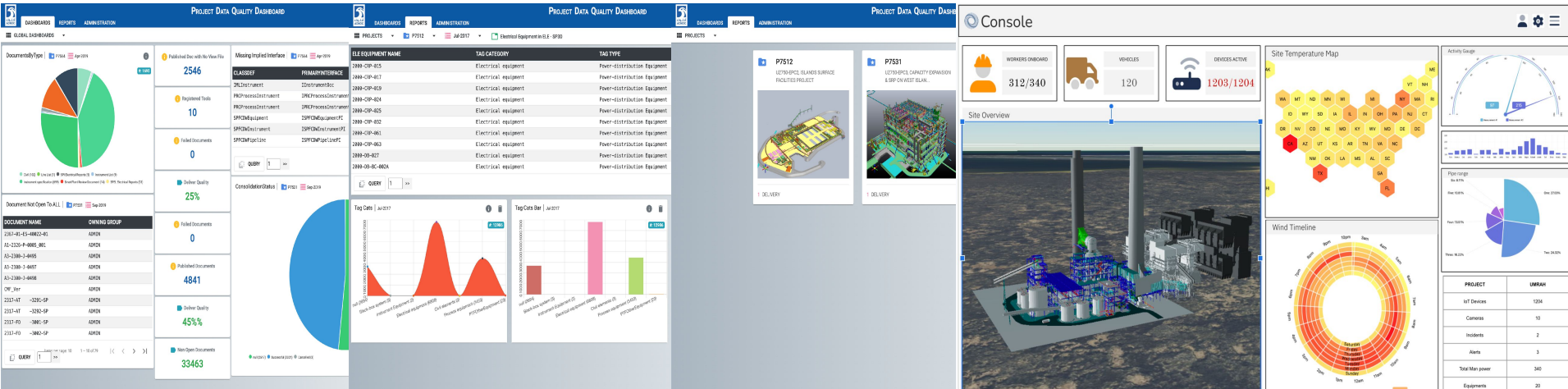
Supports Multiple Connectors.


Access from anywhere (Cloud/ On-Prem).

Re use the Configuration for the multiple handovers.

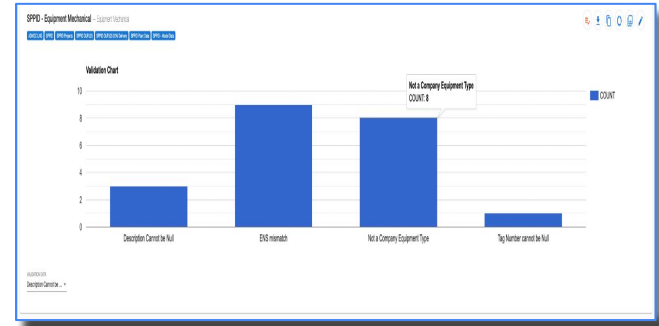
CONSOLE

More than a Digital Dashboard





Generate Dashboard for Data insights



Compare Data

Comparing data from different sources to identify issues and track changes is a critical process in data management, especially in complex projects involving multiple stakeholders. This process ensures data integrity, consistency, and reliability across the project lifecycle. Console provide a structured approach to effectively compare data from different sources:



Compare multiple reports



Compare different Deliverables



Share the comments with contractor

CONSOLE

More than a Digital Dashboard

Source Report					Target Report				
TAG NUMBER	DESCRIPTION	TAG SUFFIX	TAG PREFIX	TAG SEQUENCE	TAG NUMBER	DESCRIPTION	TAG SUFFIX	TAG PREFIX	TAG SEQUENCE
		A	GM		71-K-0503B	VENTILATION FAN	B	K	0503
71-K-0503B	VENTILATION FAN	B	K	0503	71-EK-0505B		B	EK	0505
71-EK-0505B		B	EK	0505	71-EM-0505B	LUBE OIL COOLER FAN MOTOR	B	EM	0505
71-EM-0505B	LUBE OIL COOLER FAN MOTOR	B	EM	0505	3-T-0533	GLYCOL SUMP FILTER		T	0533
3-T-0533	GLYCOL SUMP FILTER		T	0533	3-G-0531A	GLYCOL SUMP PUMP	A	G	0531
3-G-0531A	GLYCOL SUMP PUMP	A	G	0531	73-G-0501A	SKIMMED OIL PIT PUMP	A	G	0501
73-G-0501A	SKIMMED OIL PIT PUMP	A	G	0501	73-GM-0501A	SKIMMED OIL TRANSFER PUMP MOTOR	A	GM	0501
73-GM-0501A	SKIMMED OIL TRANSFER PUMP MOTOR	A	GM	0501	3-GM-0524	ANTIFOAM INJECTION PUMP MOTOR (CONTINUOUS)		GM	0524
3-GM-0524	ANTIFOAM INJECTION PUMP MOTOR (CONTINUOUS)		GM	0524	71-EK-0505D		D	EK	0505
71-EK-0505D		D	EK	0505					
TAG_NUMBER	DESCRIPTION	TAG_SUFFIX	TAG_PREFIX	TAG_SEQUENCE_I	TAG_NUMBER	DESCRIPTION	TAG_SUFFIX	TAG_PREFIX	TAG_SEQUENCE_I

MOC

Track the MOC Changes during the project life cycle and Operations & Maintenance



24/7 Monitoring



Single access for all the changes



Monitor the MOC progress during its implementation and approval



MOC KPI's

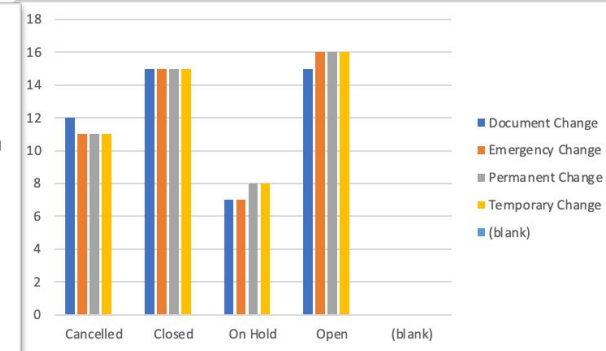
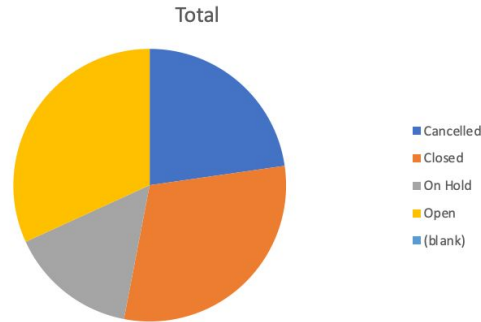


Monitor Delays and generate reports for Management

CONSOLE

More than a Digital Dashboard

MOC Number	MOC Type	MOC Status	MOC Category	MOC Date	MOC Implemented On	MOC Closed
MOC-PC-2022-001	Test MOC -001	Permanent Change	Open	2015	2019	2019 User 12
MOC-TPC-2022-001	Test MOC -002	Temporary Change	Open	2016	2020	2021 User 34
MOC-DC-2022-001	Test MOC -003	Document Change	Open	2017	2021	2022 User 56
MOC-EPC-2022-001	Test MOC -004	Emergency Change	Open	2018	2022	2022 User 78
MOC-PC-2022-002	Test MOC -005	Permanent Change	Closed	2019	2023	2023 User 81
MOC-TPC-2022-002	Test MOC -006	Temporary Change	Closed	2015	2024	User 87
MOC-DC-2022-002	Test MOC -007	Document Change	Closed	2016	2019	User 96
MOC-EPC-2022-002	Test MOC -008	Emergency Change	Closed	2017	2020	2021 User 24
MOC-PC-2022-003	Test MOC -009	Permanent Change	Cancelled	2018	2021	2022 User 12
MOC-TPC-2022-003	Test MOC -010	Temporary Change	Cancelled	2019	2022	2022 User 34
MOC-DC-2022-003	Test MOC -011	Document Change	Cancelled	2015	2023	User 56
MOC-EPC-2022-003	Test MOC -012	Emergency Change	On Hold	2016	2024	User 78
MOC-PC-2022-004	Test MOC -013	Permanent Change	On Hold	2017	2019	2021 User 81
MOC-TPC-2022-004	Test MOC -014	Temporary Change	Open	2018	2020	2021 User 87
MOC-DC-2022-004	Test MOC -015	Document Change	Open	2019	2021	2022 User 96
MOC-EPC-2022-004	Test MOC -016	Emergency Change	Open	2015	2022	2022 User 24
MOC-PC-2022-005	Test MOC -017	Permanent Change	Open	2016	2023	User 12
MOC-TPC-2022-005	Test MOC -018	Temporary Change	Closed	2017	2024	User 34
MOC-DC-2022-005	Test MOC -019	Document Change	Closed	2018	2019	2019 User 56
MOC-EPC-2022-005	Test MOC -020	Emergency Change	Closed	2019	2020	2021 User 78
MOC-PC-2022-006	Test MOC -021	Permanent Change	Closed	2015	2021	2022 User 81
MOC-TPC-2022-006	Test MOC -022	Temporary Change	Cancelled	2016	2022	2022 User 87
MOC-DC-2022-006	Test MOC -023	Document Change	Cancelled	2017	2021	User 96
MOC-EPC-2022-006	Test MOC -024	Emergency Change	Cancelled	2018	2024	User 24
MOC-PC-2022-007	Test MOC -025	Permanent Change	On Hold	2019	2019	2019 User 12
MOC-TPC-2022-007	Test MOC -026	Temporary Change	On Hold	2015	2020	2021 User 34
MOC-DC-2022-007	Test MOC -027	Document Change	Open	2016	2021	2022 User 56
MOC-EPC-2022-007	Test MOC -028	Emergency Change	Open	2017	2022	2022 User 78
MOC-PC-2022-008	Test MOC -029	Permanent Change	Open	2018	2023	2023 User 81
MOC-TPC-2022-008	Test MOC -030	Temporary Change	Open	2019	2024	2024 User 87
MOC-DC-2022-008	Test MOC -031	Document Change	Closed	2015	2019	2019 User 96



Dashboards

Dashboard with data and graphical representations



Supports Multiple Dashboards



Easy to Create and Share



Prepare KPIs



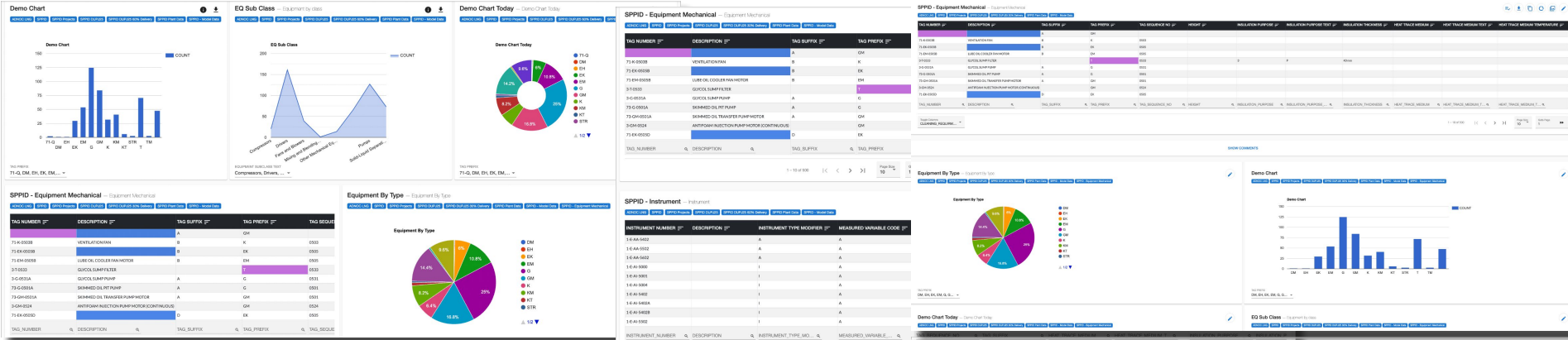
Perform Data Analytics



Export to PDF



Share with Vendors / Contractors



SmartPlant

P&ID Audit



Verify the PBS as per Company standard.



Missing Labels and Symbols.



Verify the drawing and make sure Company borders are used.



Verify the property values for based on the company standards



Compare the Reference Date with the delivered Seed Database.



Verify the naming format for Equipment, Instrument, and pipe run as per Company standard.



Make sure all the items Inside the drawings are intelligent items and not dummy items or item notes.



Generate reports for Equipment, Instrument, and pipe run and make sure it's matching with published data.



Verify no items placed outside Border



Review Drawings and make sure the naming is as per Company standard.



Check all the properties related to Drawings are as per Company standard.



Verify all OPC's are working and connected correctly.



SmartPlant

Instrumentation Audit



Verify the PBS as per Company standard



Compare Instruments Data with SPPID Instruments



From admin module make sure the naming convention as per Company standard



From specification module make sure the Company template for datasheet are used.



Generate loop drawing and make sure Company layout are used



Compare the Reference Date with the delivered Seed Database



Generate reports for all tags and documents from SPI and make sure it's matching with published data

SmartPlant

Electrical Audit



Verify the PBS as per Company standard.



Make sure all the item tag properties are filled as per Company standard



Verify in drawings no major items or labels placed as item note



Verify for Electrical index, all items naming conventions are as per Company standard



Compare the Reference Date with the delivered Seed Database



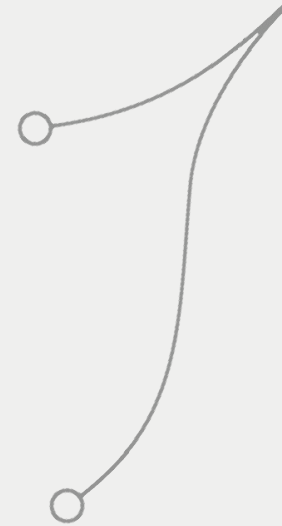
Verify that all the properties related to document number and Tags are as per Company standard



Generate reports for all electrical items and documents and make sure it's matching with published data



Verify in drawings no items placed outside border.



Smart 3DAudit



Verify the PBS as per Company standard.



Verify the Borders for ISO / ORTHO Drawings.



Extract Pipeline and it's ISO Drawings



Compare the Reference Date with the delivered Seed Database



Generate reports for all Tags and Drawings and make sure it's matching with published data.



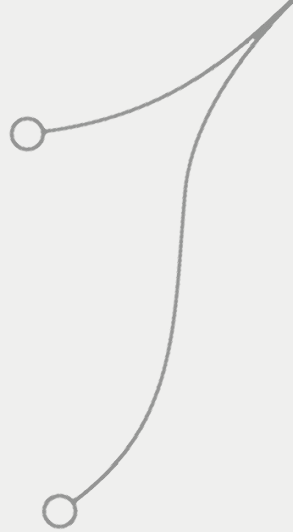
Verify that all the properties related to Document and Tags are as per Company standard



Compare the Smart 3D Tags with SPPID Tags



List of Custom Specs



SmartPlant

Foundation Audit



Verify the PBS as per Company standard.



Verify Published Data Inconsistency.



Generate missing File in Vault report.



Published Document Status.



Compare the Reference Date with the delivered Seed Database.



Verify Documents Relations for the Equipment, Instruments and Pipelines.



Verify that all the properties related to Document and Tags are as per Company standard



Generate file report and confirm that AutoCAD files are available for all Non-TEF engineering drawings.



Verify Schema Changes



Verify Published Data Correlation.

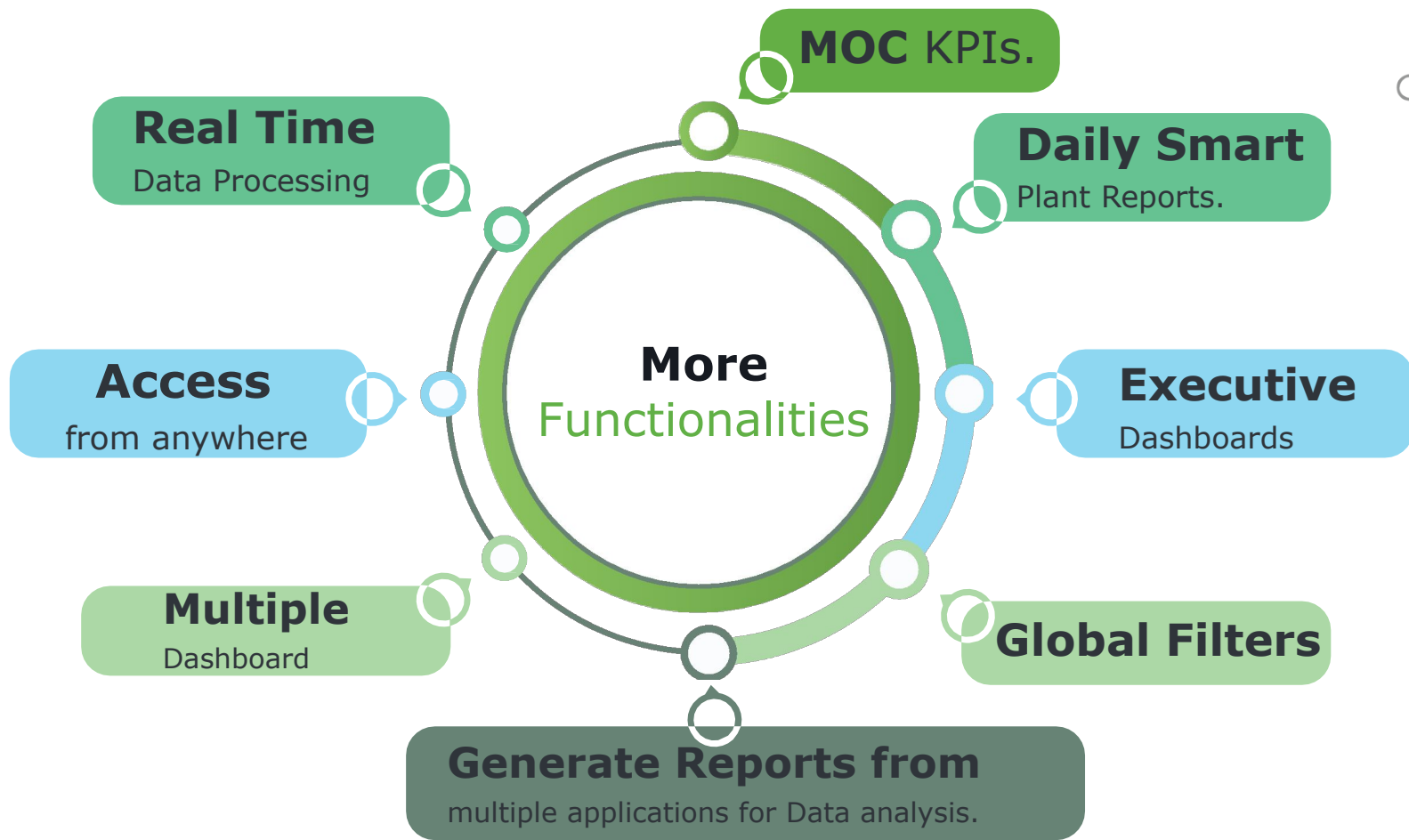


Generate missing View File for the published data



Verify Published Tags Count with the individual Tools.

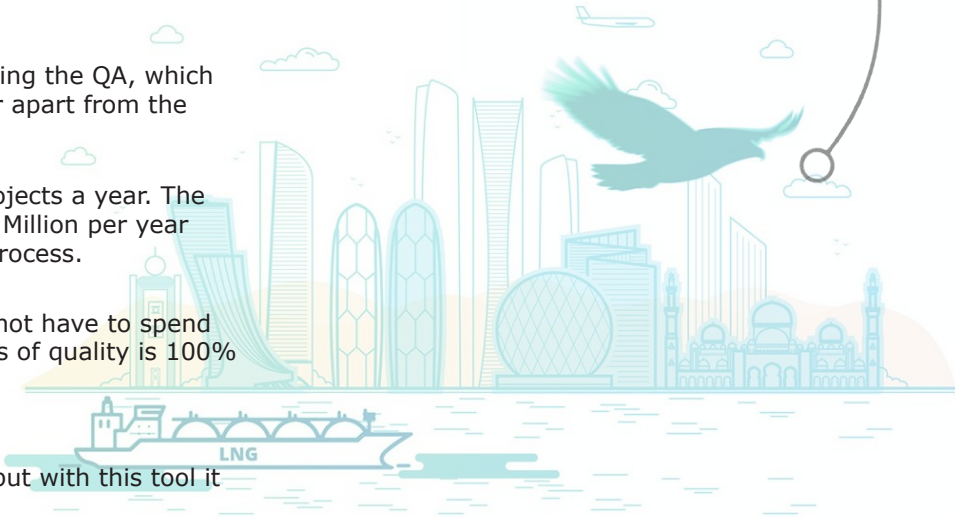




CASE STUDY

Client : ADNOC LNG

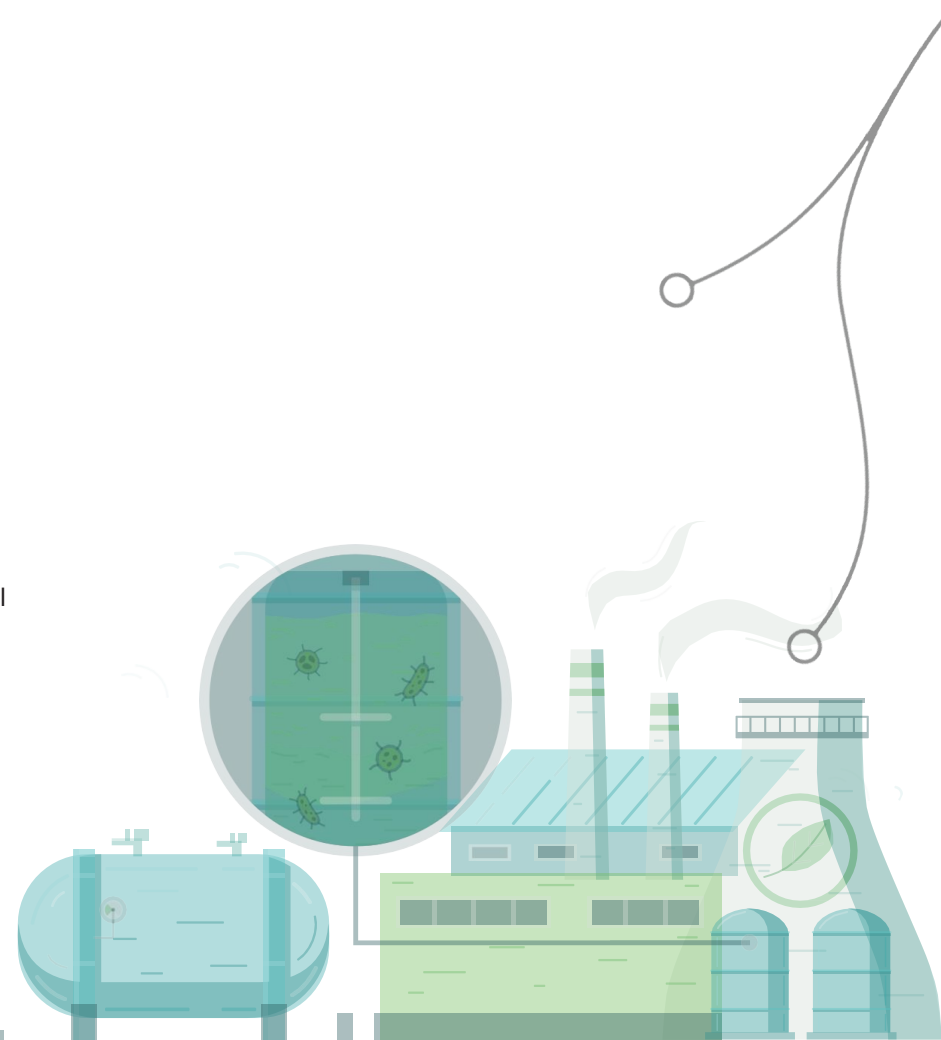
- ✓ Projects from EPC are handed over in phase, 30%, 60%, 90% and AS Built. Everytime the handover happens Owner operators has validate the Data before acceptance.
- ✓ For Validation, ADNOC LNG approached third party for performing the QA, which used to cost them approx USD 100K for each Project Handover apart from the resources involvement and their onsite expenses.
- ✓ Owner Operator like ADNOC LNG receives handover for 3-4 projects a year. The amount of money they were spending was close to USD Half a Million per year and this process will not ensure 100% quality due to manual process.
- ✓ After acquiring our Console at fraction of this amount, they do not have to spend this amount of money every year and their expectation in terms of quality is 100% achieved.
- ✓ The Time required for them to Validate the Data is 3-4 weeks but with this tool it will be in 1-2 days based on the amount of Data.



CASE STUDY

Client : ADNOC REFINING

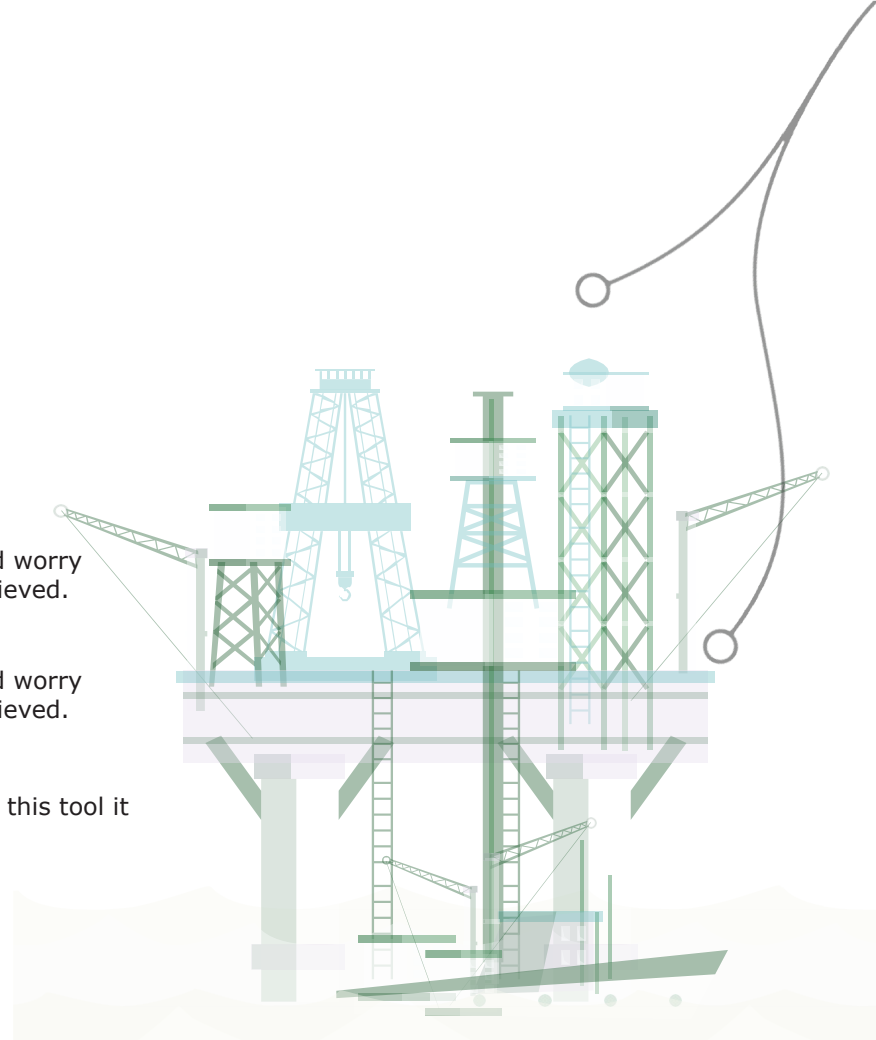
- ✓ For Validation, ADNOC REFINING approached third party for performing the QA, which used to cost them approx USD 130K for each Project Handover apart from the resources involvement and their onsite expenses.
- ✓ Owner Operator like ADNOC REFINING receives handover for 6-7 projects a year. The amount of money they were spending was more than USD Half a Million per year and this process will not ensure 100% quality due to manual process.
- ✓ After acquiring our Console at fraction of this amount, they do not have to spend this amount of money every year and their expectation in terms of quality is 100% achieved.
- ✓ The Time required for them to Validate the Data is 3-4 weeks but with this tool it will be in 1-2 days based on the amount of Data.



CASE STUDY

Client : ADNOC OFFSHORE

- ✓ ADNOC OFFSHORE used SPF and Excel for Data Validation and QA / QC
- ✓ After acquiring our Console, they do not have to spend lot of time and worry about Data size and their expectation in terms of quality is 100% achieved.
- ✓ After acquiring our Console, they do not have to spend lot of time and worry about Data size and their expectation in terms of quality is 100% achieved.
- ✓ The Time required for them to Validate the Data is 4-6 weeks but with this tool it will be in 1-2 days based on the amount of Data.



THANK YOU

