

ERP Project control staffing & systems:

Connect people, content,
data and systems



- Your Project & IT problems solved
- Flexible managed staffing model
- Less risk: seasoned Project consultants
- Consulting expertise at Contractor prices
- Bespoke integration to match your needs
- Solutions Guaranteed

Solve the Challenge
of Everyday processes

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DADA Enterprises

Creating SMART AI templates and a SMART Construction Platform

*Turning your project data into predictive intelligence by creating a
Smart Construction Platform*



What we hope to show you today

What is meant by Smart Construction Platform

Using Machine Models for winning work and being competitive

Automate Peer Check Review process of Nuclear Operating Procedures (NOPs)

How we can use Data Analytics/ML to create 'heat-maps' to identify hidden risks in schedules, communication

Create a 'risk radar' to identify litigation risks early on



Consultancy at contractor prices



A low risk choice



Consulting as a Subscription



Agile implementation



Flexible Consulting Framework



"Speed to Value" is our USP



Greater control over suppliers



Tracked communication



Decrease in lead times



Control over the process



Greater transparency



Current workflow status

Who We Are





Who We Are

DADA are current members of the Sizewell C Consortium, Britain's Energy Coast Business Cluster (BECBC), Sellafeld Shared Service Alliance, and Cumbria Business Growth Club. Via this network they actively seek to add Social Value in the projects within which they work (e.g., taking on apprentices through DWP's KickStart Scheme).



Partners



Past Clients

DADA are members of the Institute of Risk Management (IRM) Risk & Complexity SIG, Association of Cost Engineers' (ACostE) Southwest Regional Board, and Nuclear Institute's Digital SIG (DIGSIG).



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Technology Partners



Primavera Project Portfolio Management solutions, and next-generation cloud analytics run on Oracle Cloud applications, to evaluate, prioritise, plan, manage and implement projects, program portfolios.



Deltek software products (Fuse, 360, PM Compass, Cobra, Open Plan) help you create the soundest schedules possible – and execute them with consistent success.



Verto 365 PPM software offers a range of agile tools to manage multiple programmes and portfolios from your web platform or directly from within Microsoft Teams.



Now called Kantata, it is the only intelligent PSA application on the Salesforce platform, to offer category-leading capabilities in revenue forecasting and revenue recognition, resource planning, project management, billing, and mobile time and expense entry.



Via our Partner BEMO, Microsoft Gold Certified Solutions Provider, we offer solutions in migrating to Microsoft 365 and Azure.

Technology Footprint



Implementation Partners

MIDDLE EAST



NORTHERN EUROPE



USA & CANADA



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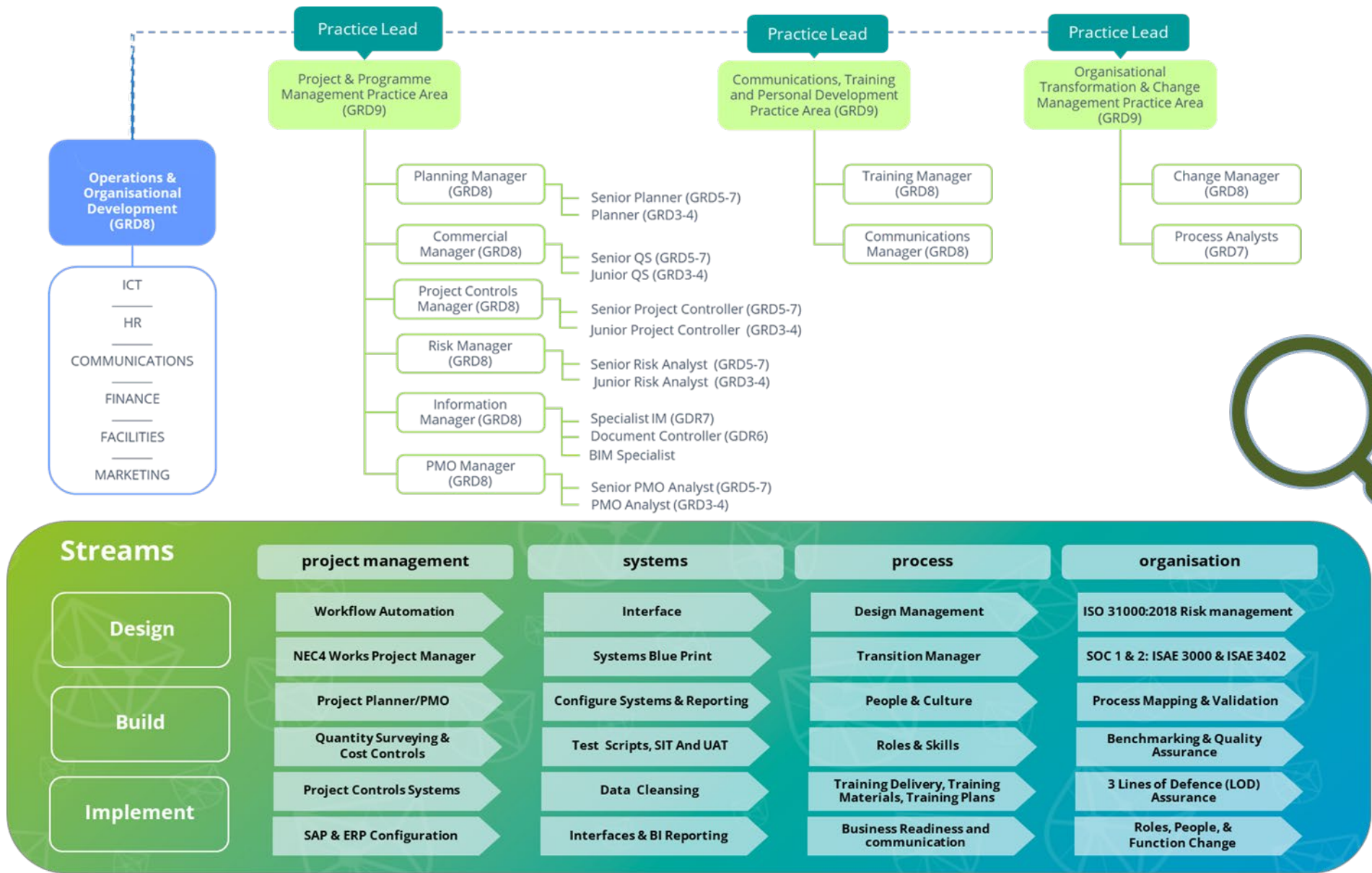
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Current workflow status



Who We Are



Client Case Study

National Nuclear Laboratory (NNL)
Supply of SQEP Risk Management workforce for Enterprise Risk Management (ERM) capacity building

Key Services:

- Ensuring that Key Risk Indicators (KRIs) are clearly defined, documented, monitored, and regularly reviewed.
- Integration structure and framework; covering Governance, risk infrastructure, competency, and capability requirements
- Laying foundation for implementation of enterprise risk management tool (Active Risk Manager)

Case Summary
Enabled risk-based assurance activities to be planned, whilst enabling assurance activities to feed risk information (causes / impacts etc.) across a portfolio of projects in:

- Nuclear Plant Operations (e.g., Windscale Facility)
- Radioactive Waste Processing and Management
- Decommissioning (e.g., handling of radioactive sealed sources)

About National Nuclear Laboratory (NNL)
Overview:
Since 2008, NNL have been providing independent advice to the UK Government and working with other National Laboratories around the world as well as delivering a full range of research and technology to support the nuclear fuel cycle. NNL is owned by the UK Government's Department of Business, Energy, and Industrial Strategy (BEIS).

The Dada Enterprises Advantage
Process mapping, including roles and responsibilities and document detailing how, and when, project specific risk information should be noted and reported as part of standard reporting to determine the risk profile appropriate for that business unit (e.g., Project risk through to Group risks).



Human Resources

- Employee recruitment
- Employee on boarding
- Termination requisitions
- Time sheet follow-up
- Compliance



Operations & Asset control

- Product approval
- Quality assurance
- Product lifecycle
- Service requisitions
- Asset management



Project Delivery

- Reporting Dashboards
- Portfolio reports
- Project Controls tool sets
- ERP Solution Design
- P3M3 Maturity Audits
- PMO administration



Information Technology

- Help Centre Service provisioning
- Mobile activation
- Internal process automation



Finances and Administration

- Contract management
- Supplier approval
- Invoice processing
- Expense approval
- Supplies requisitions



Sales & Marketing

- Proposal and contract development
- Demand Control
- Account revisions and Pipeline



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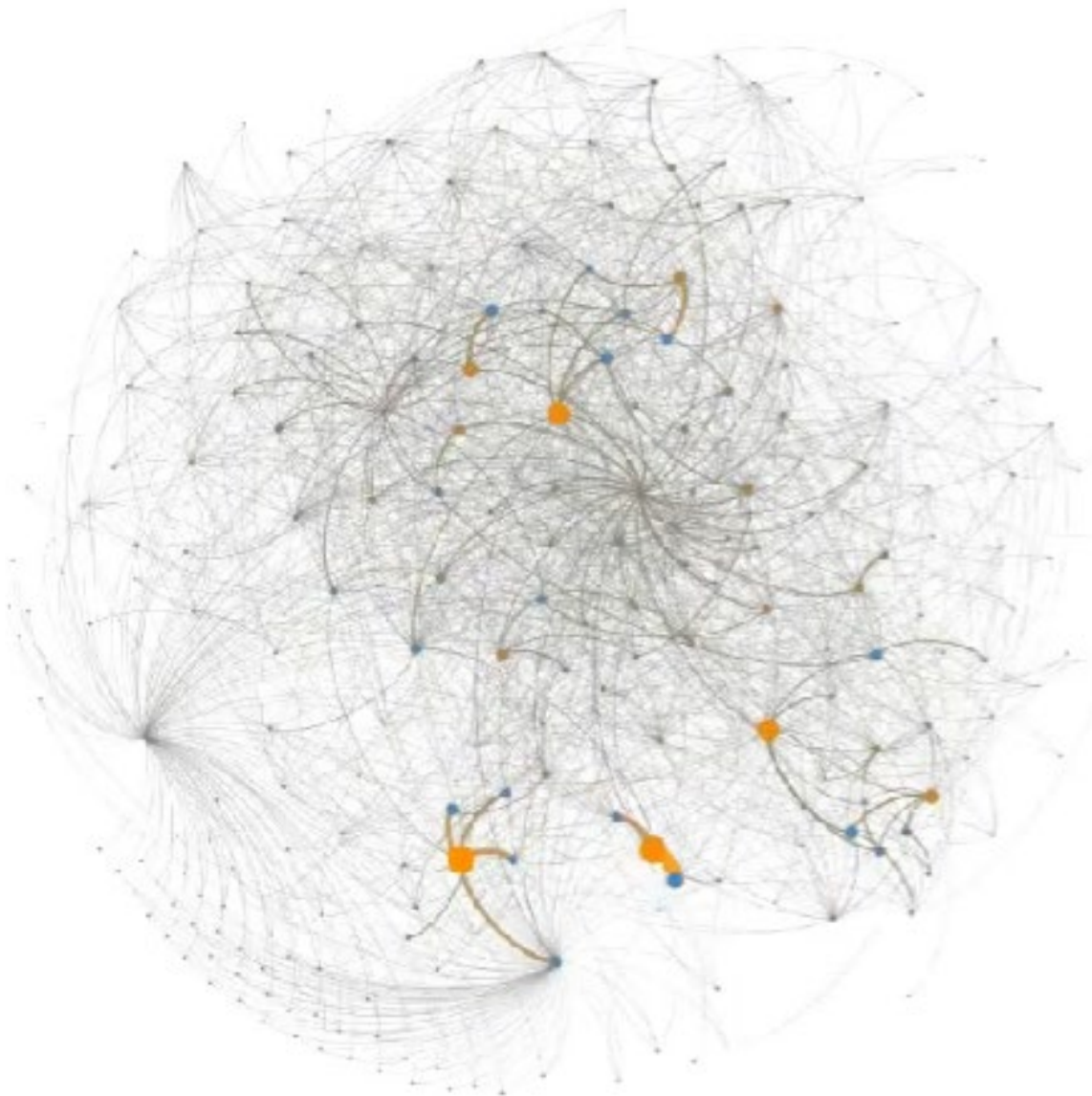


Current workflow status

Solving the '*right*' problems

Construction supply chains are extremely connected and very information intensive.

This makes it increasingly challenging to make accurate predictions using past projects, and traditional project management approaches.



How likely is the project going to be delayed and by how much?

What is the likelihood that we go over budget? By how much?

What hidden risks do we need to prepare and plan for?

What activities are likely to be delayed

What is the risk of rework due to incorrect information?

How do we improve our predictive capabilities?



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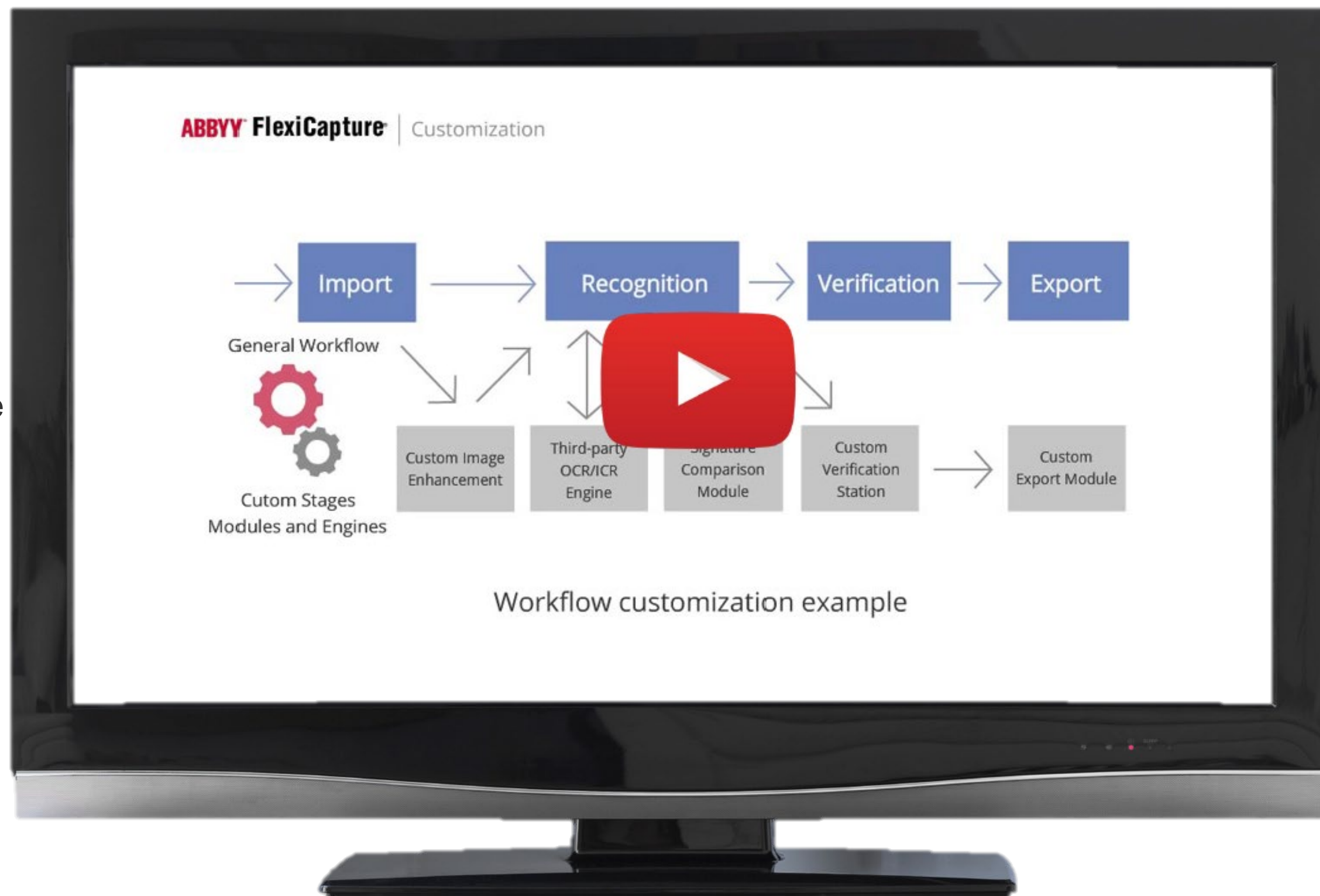
Current workflow status

Straight Through processing using ABBYY FlexiCapture



ABBYY FlexiCapture overview

- Classification/Extraction and auditing documents for presence of sections/keywords
- Machine Learning to accommodate varying locations of data.
- Verification stations for quality assurance via Group and Field verification.
- Export of data into a SQL dB for manipulation and transformation.
- Data can be extracted for verification, to then create SMART AI templates via Power Platform / Ui Path / SharePoint.





Use of Artificial Intelligence Software Service to automate Peer Check Review process of nuclear operating procedures

Practical applications

- *Straight-Through Processing to update the Enterprise Asset Management (EAM) system in SAP PM without double entry.*
- *Automate Supplier Invoice & Credit Note processing.*
- *Reporting process blockages can be alerted on NEC4, HSEQ and commercial compliance.*

Challenge



- Developing the Parent/Child relationships (P/C) within PROMS dB for the Normal Operating Procedures (NOPs), Surveillance Test Procedures (STs), Periodic Test Procedures (PTs) and Local Alarm Response Procedures (ARPs)
- This generated a RO Database to generate Primary/Replica procedures.

Solution



- Converting and migrating procedures and other data (such as the existing Nawah Equipment Database, eSOMS, Alarm Point Data, etc.) via OCR digitisation from a static format (PDF, csv) into a SQL dB (PROMS).
- Creating Dynamic Procedures/Smart AI Templates via SharePoint Forms, ABBYY FlexiCapture, MS Power Apps and Power Automate

Value



- Use of Artificial Intelligence Software Service to automate Peer Check Review process, which ensured that their Writer's Guides have been appropriately implemented.
- Use Natural Language Processing (NLP) to examine any Note, Caution and/or Warning to ensure that compliance to support and enhance the performance of procedure writers.



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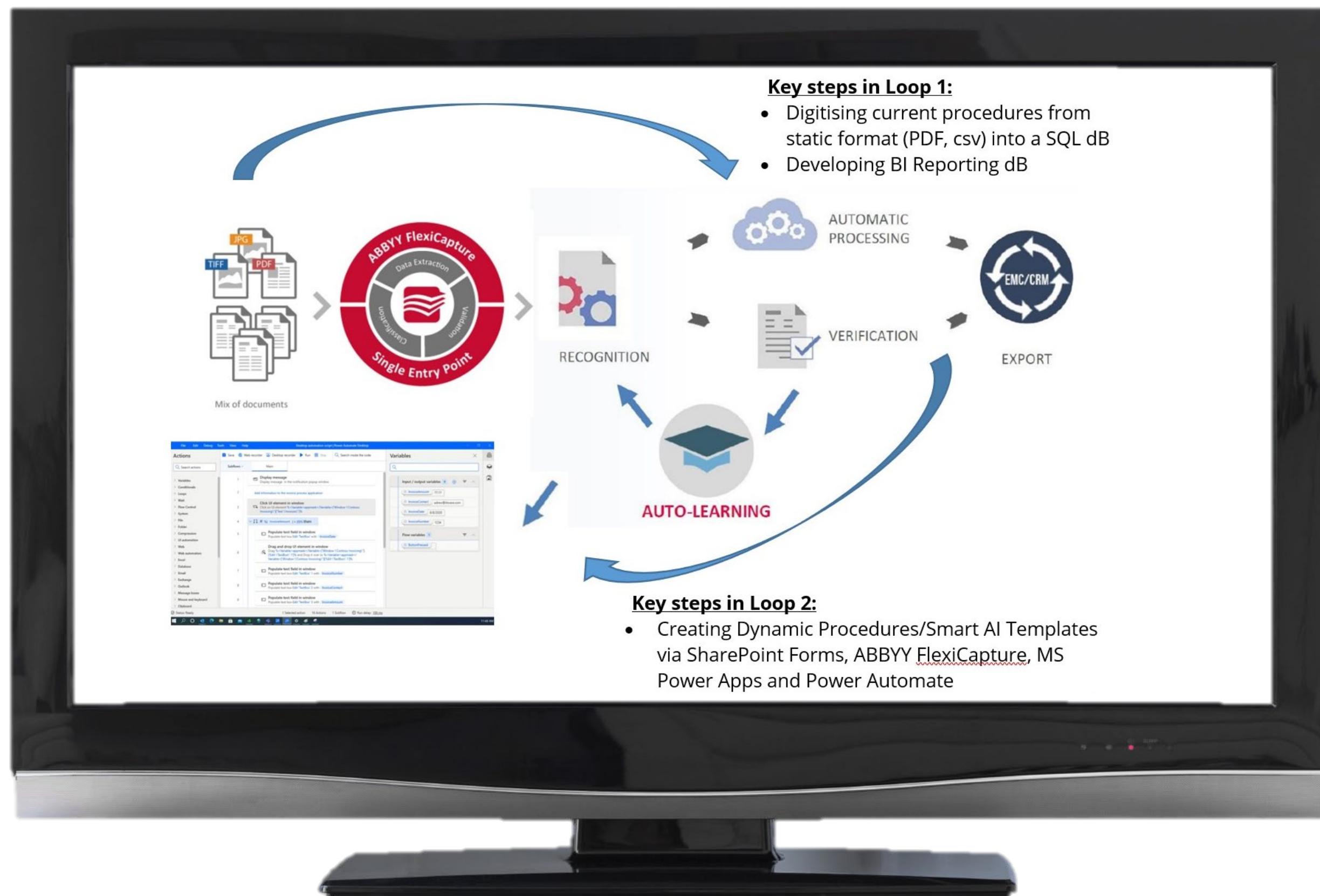


Current workflow status



Conversion of PROMS nuclear operating procedures

- Here we demonstrated how the data elements above are extracted. Once the extracted fields have been migrated to a SQL dB, a 2nd loop would then extract the data into SMART AI templates.
- Data once in a SQL dB is then inserted into a Client-Side Pre-Production / Production dB for verification.
- Here we show how we can extract the data for verification, to then import into Power Platform/Ui Path / SharePoint in the **2nd loop** to create SMART AI templates.





Conversion of PROMS nuclear operating procedures

Steps shown here:

- Design the form fields and **connect back to SQL Query Lists**.
- Format templates with **correct branding** and document references.
- Ensure **form validation** based on global parameters selected.
- **Database and system check** to confirm against database lists (e.g., Master Equipment Lists, Office 365, DCMS).
- **Q-Screen for intelligent data extraction** with high confidence level.

Video URL: [Watch Nawah Energy OCR demo overview](#)

1 Logo and branding

2 Integration to Document Classification Management Systems (DCMS)

3 Integration with O365 and Organisational Structure

4 Verification of procedure based on parameters selected on coversheet (e.g. nuclear unit)

5 Master Equipment List comparison. If Equipment Number is not founded on Master List then the software would populate an error

Room	Equipment Number	Equipment Desc	Status
120A06D	2-542-V-2018B (AF)	AFWP PP01 B DISCH LN VENT VV	CAP REMOVED
120A06D	2-542-V-2018B (AF)	AFWP PP01 B DISCH LN VENT VV	HOSE INSTALLED
120A06D	2-542-V-2017B (AF)	AFWP PP01 B DISCH LN VENT VV	OPEN
120A06D	2-542-V-2018B (AF)	AFWP PP01B DISCH LN VENT VV	THROTTLED OPEN 2 TURNS



East Midlands Railway improved their email processing time by 5 hrs+ per day using ABBYY Digital Intelligence and Advanced Classification from Engeneum



E M R
EAST MIDLANDS RAILWAY

"I was looking for a more automated approach to reduce our manual resource time and fulfil our reporting needs. We are now well below our 20 day KPI response time and have been impressed with the flexibility and ease of integration to our CRM system."

- Nara Burne, Customer Experience Systems Manager East Midlands Railway

Challenge



- East Midlands Railway (EMR) changed its reporting processes so that staff had to review incoming complaint emails, record, and report the cause of the complaint at the time the complaint was received, instead of at the time of response—which could be up to 20 days later.
- Need for real-time integration with their CRM for query resolution.

Solution



- Implemented ABBYY's Digital Intelligence platform with advanced classification has automated the email process by capturing key data from text on emails and document attachments.
- The solution classifies emails without any manual input. Data is then automatically routed to EMR's CRM system.

Value



- EMR reduced customer response times and at least 5 manual hours per day.
- Approximately 65,000 emails per year are now processed automatically, and customer response times are well below the KPI of 20 day working days.
- Improved customer processing times.



Automated supplier invoice & credit note processing with ABBYY and Engeneum, saving 60% of processing time with an automated seamless connection to Sage

scena

"Engeneum & ABBYY provided us with a processing solution that has saved 60% of the previously manual process on invoice entry, freeing up our accountants' time to focus on the results, the job costings, and other KPIs. In terms of client value, this was huge."

- John Bradney, Accountant at Scena

Challenge



- Huge volume of incoming invoices, which took an average of 3 days per week to process, was costly in terms of labour and disruption.
- Pain points for the finance team included paperwork bottlenecks, inconsistent delivery of approved invoices, and no real control over lost (or parked) invoices.

Solution



- Scena transformed their accounts payable processes and removed the need for time consuming manual entry by implementing Engeneum's Invoice Processing solution with ABBYY Digital Intelligence.
- Scena now processes, and approves invoices in a fraction of the time resulting in improved operational efficiency and cost savings.

Value



- Significantly reduced accounts payable processing costs by improving operational efficiency, reducing errors, and automating error handling.
- Electronic storage of paper copies of invoice documents.
- Saving 60% of processing time with automated supplier invoice & credit note processing.



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A low risk choice



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Agile implementation



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Control over the process



Greater transparency



Current workflow status



Renault Argentina transformed Finance Department operations with ABBYY Digital Intelligence to automate invoice processing to be 100% digital



Incorporating this new technology allowed us to transform an operational process into 100% digital, and at the same time allowed us to introduce ABBYY solutions to other areas of the company and to other countries in the Region (such as the Shared Services Center located in Colombia).

↳ Ariel Varela, Accounting & Digital Finance Manager Renault Argentina

Working with ABBYY was a rich experience, not only because we could truly improve and simplify several processes within the company but also because they delivered exactly as was promised and with great Time To Market

↳ Matias Ghirardi, CIO Renault Argentina

Challenge



- Needed to automate a completely manual invoice processing system that was slow and prone to error.
- Complex invoices that involved customs and foreign trade details.
- Solution had to process documents in multiple languages and integrate with SAP ERP financial software.

Solution



- Automation of the entire invoicing process. Invoices arrive as email attachments. ABBYY extracted the invoice and all the data in any format and language and delivers validated data to the ERP. It located incoming emails, extracts the invoices, captures and then extracts data from a range of formats, languages, and fields.

Value



- SAP Invoice loading time was reduced on average from 12 minutes to 1 minute per invoice.
- The number of people interacting with the processes reduced from 2 to 0.5 people.
- Staff have time to perform higher-value work. 95% accuracy for capture and text recognition.



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Current workflow status

What is meant by Smart Construction Platform



Solving the ‘*right*’ problems

Construction supply chains are extremely connected and very information intensive.

This makes it increasingly challenging to make accurate predictions using past projects, and traditional project management approaches.

How likely is the project going to be delayed and by how much?

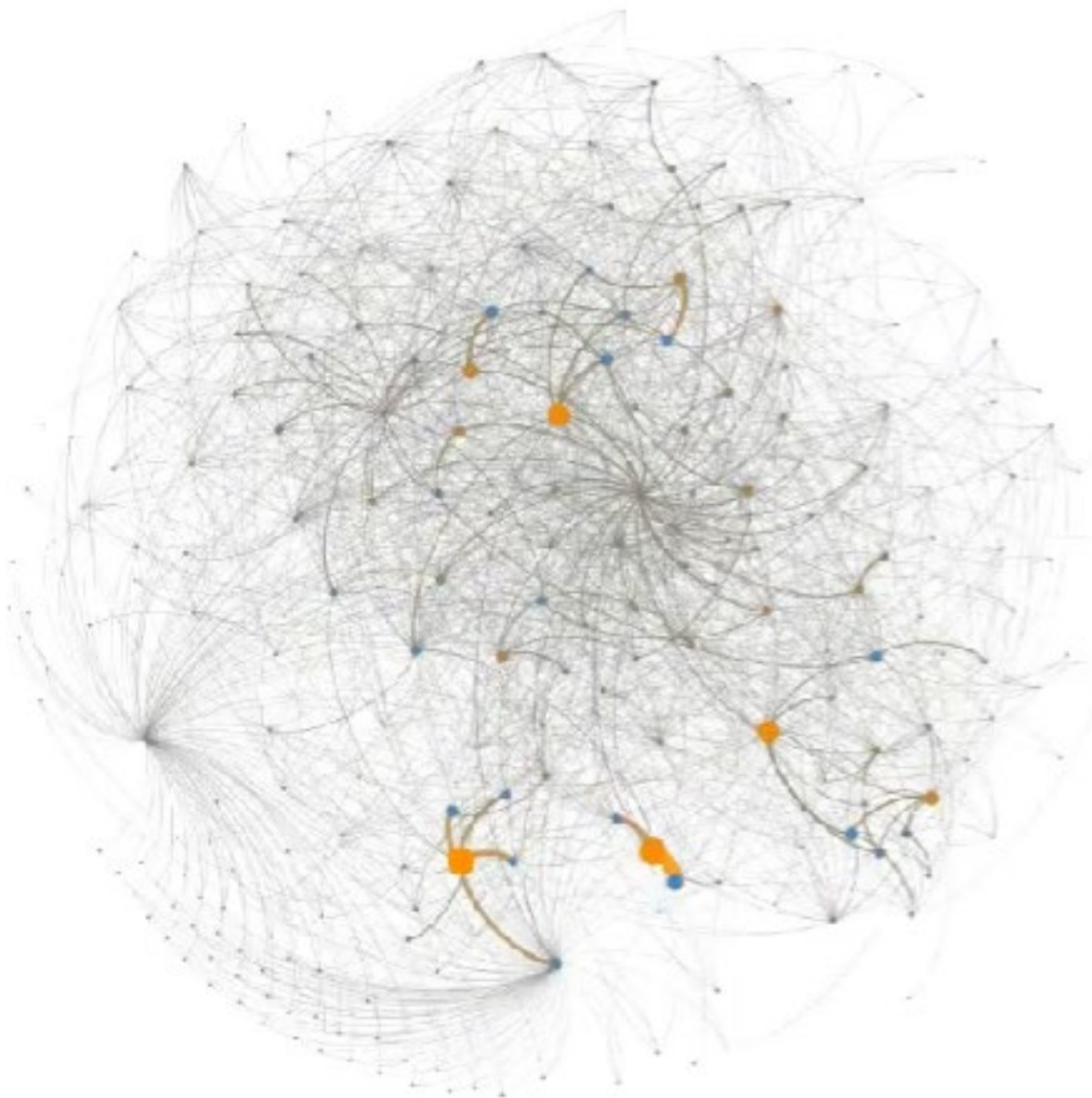
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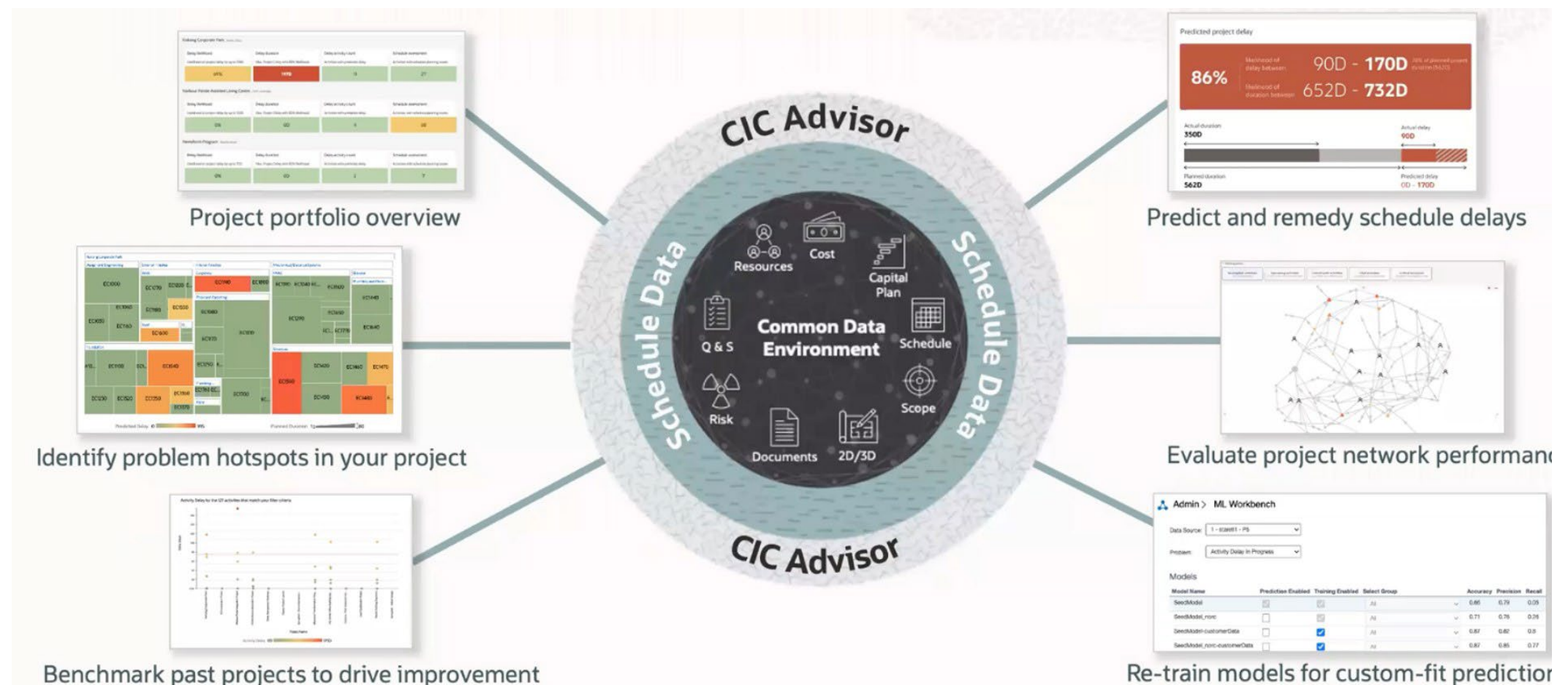
How do we improve our predictive capabilities?





What are the benefits of creating a SMART Construction Platform

- What is meant by Smart Construction Platform
- How we can use Data Analytics/ML within CIC
- How can we use this for winning work and being competitive
- How-to-Start your Data Journey



Risk

- What are our usual risks for this type of project?
- How many of them did we identify ahead of time?
- Did our mitigation strategies work?
- Where our risks come from?

Quality

- What kind of quality issues have we typically had?
- How much time did we lose to rework?
- Are the root causes for the quality issues identifiable?
- Whom are the Suppliers?

Safety

- How many safety incidents have we had in the past?
- Where did they arise from?
- Are there patterns to highlight areas to fix?
- Can we prevent them in the future?

Schedule

- Which activities have been typically delayed?
- Which activities have been delivered ahead of schedule?
- How much time on average did we take on average this activity?

Budget

- How accurate are we with budgets usually?
- How many Change Requests do we typically have on these jobs?
- Who raised the most variations?



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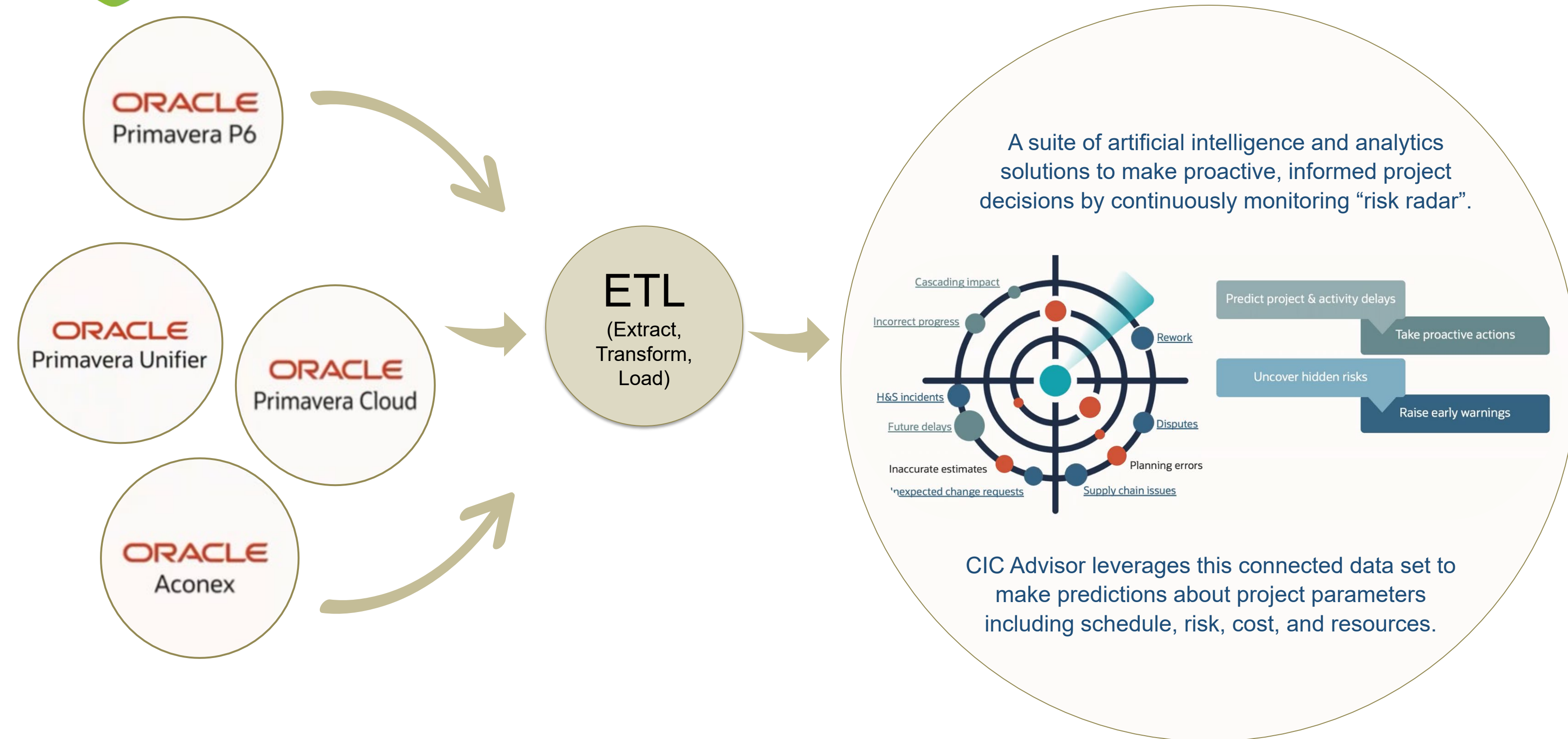
Greater transparency



Current workflow status

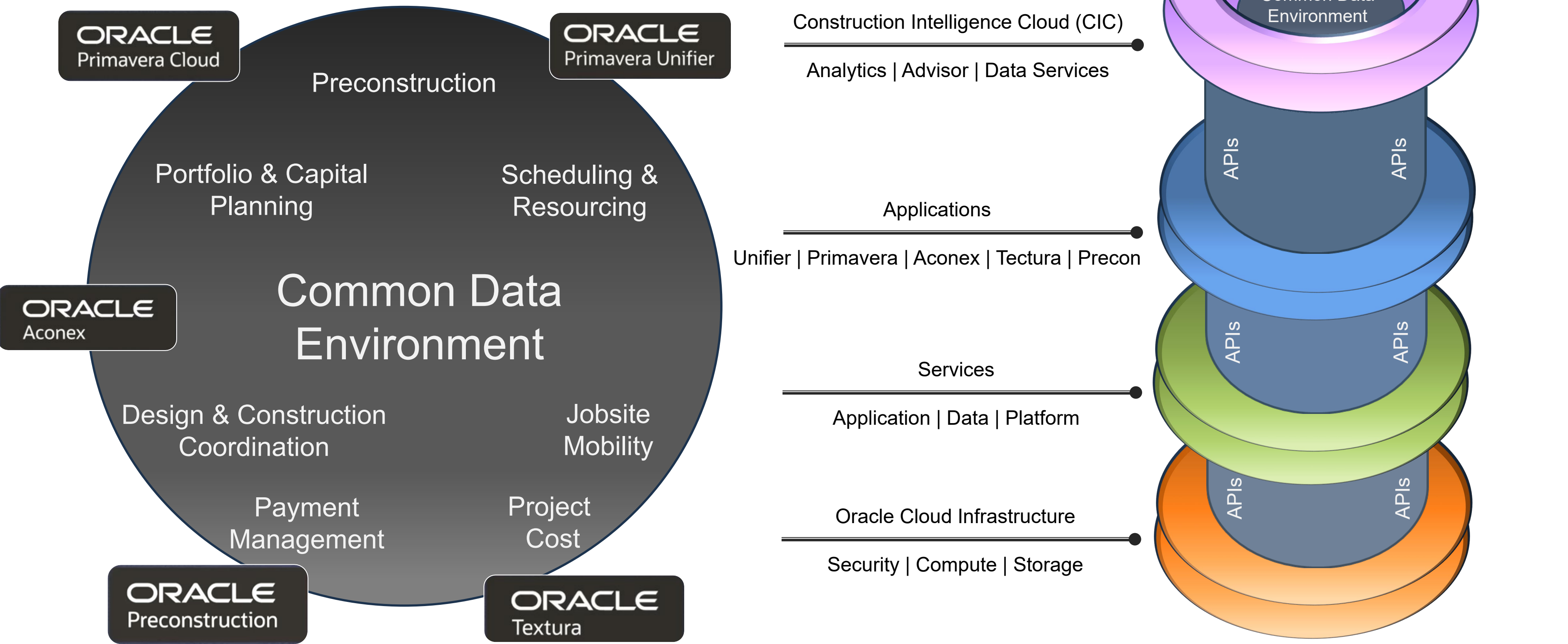


TODAY: Oracle Construction Intelligence Cloud (CIC)





Creating a Smart Cloud Platform

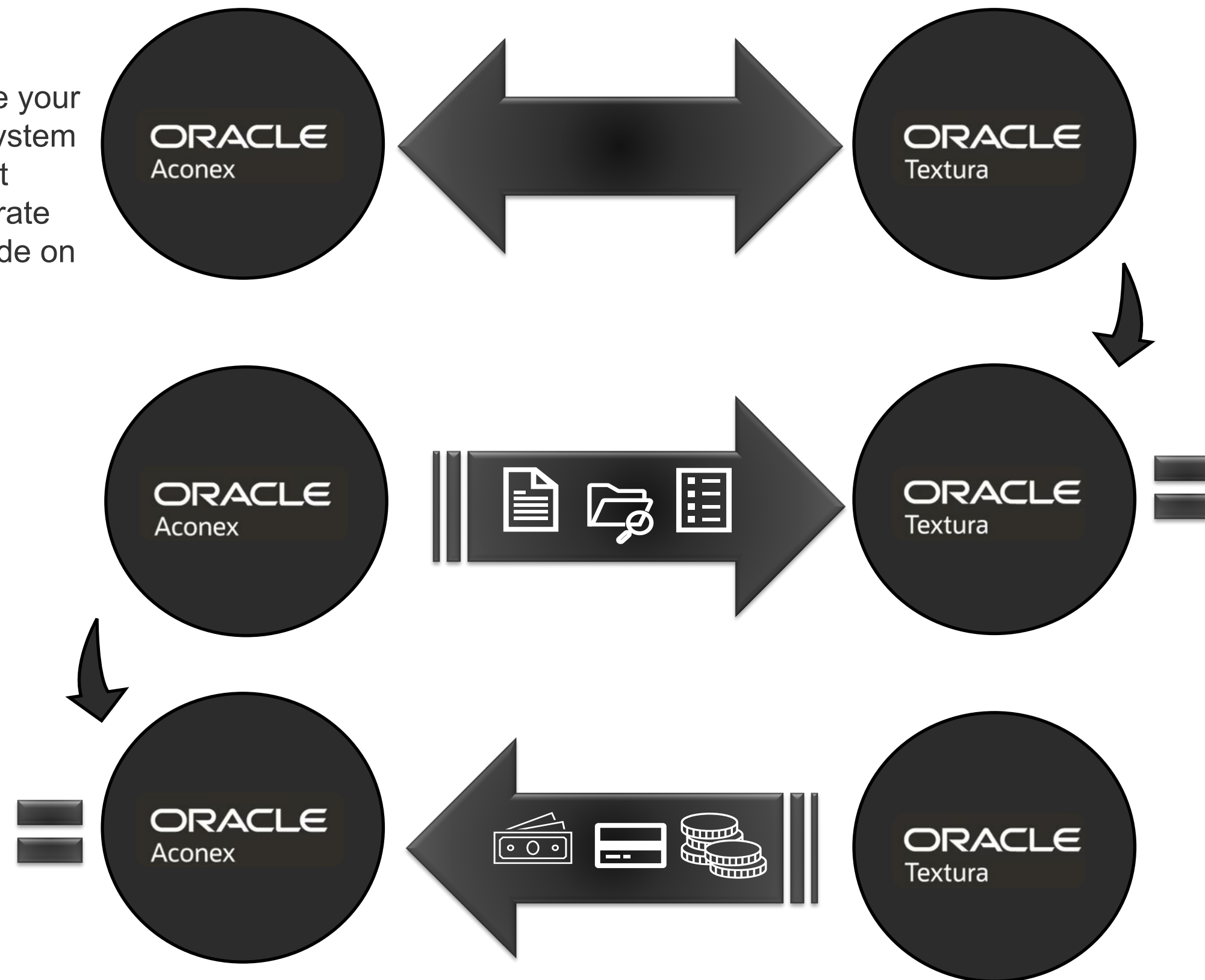




Oracle Aconex Oracle Textura

Here, we will show how to integrate your Document Control Management System (Oracle Aconex) with your Payment Portal (Oracle Textura) to demonstrate payments to Contractors being made on time, to avoid interest fees.

Oracle Aconex records adherence to Payment schedules to subcontractors and construction contracts in Textura.



Subcontractor claims assessed in Oracle Textura are automatically added to document register in Oracle Aconex, retaining an auditable, accurate record as a single source of truth.



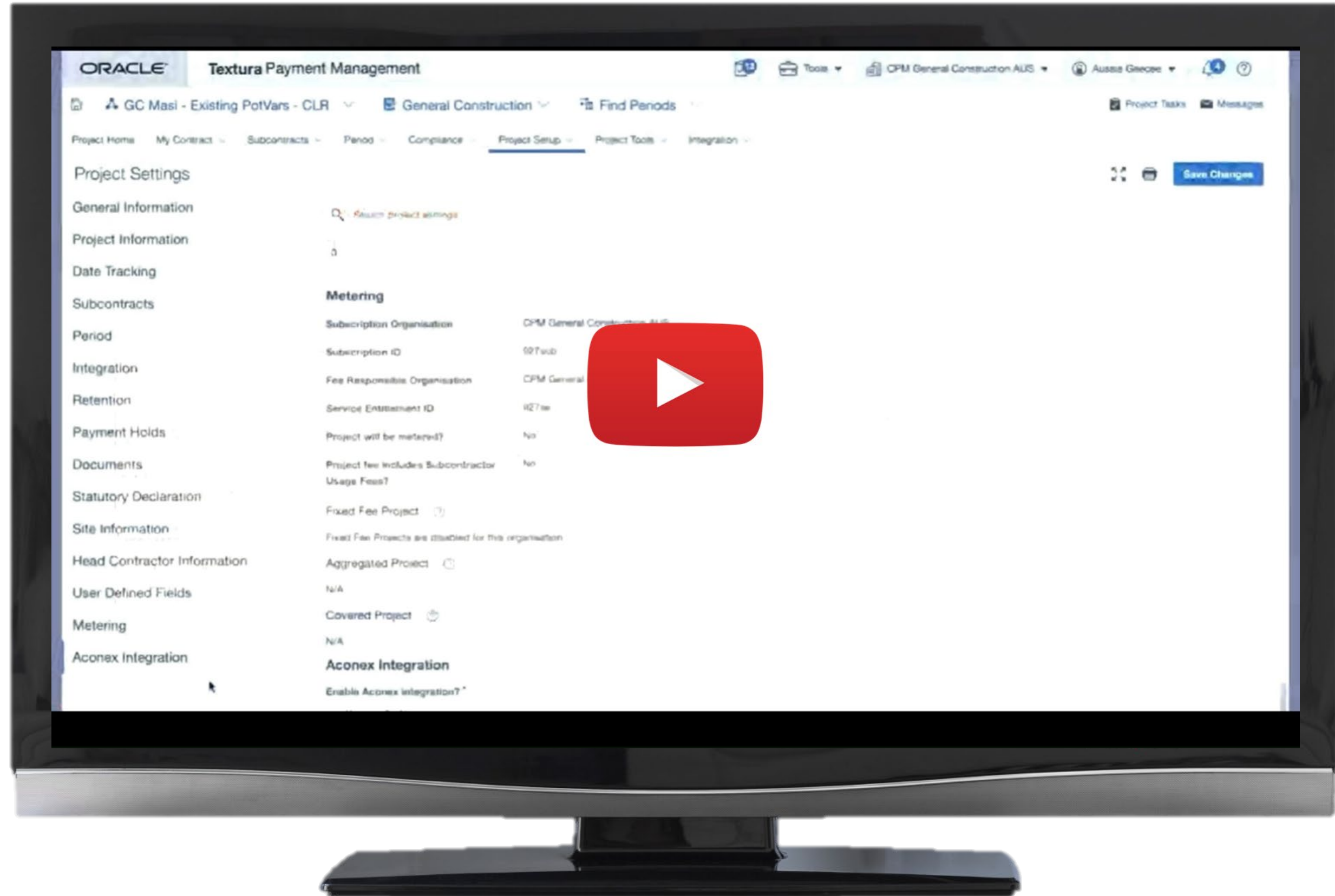
Oracle Aconex Oracle Textura

One-time setup ensures to connect Oracle Aconex and Oracle Textura application.

Oracle Textura managers progress claims, variations, and payments.

Here, we setup integration so key payment documents are stored in Oracle Aconex as a system of record.

Subcontractor claims assessed in Oracle Textura are automatically added to your document register in Oracle Aconex.

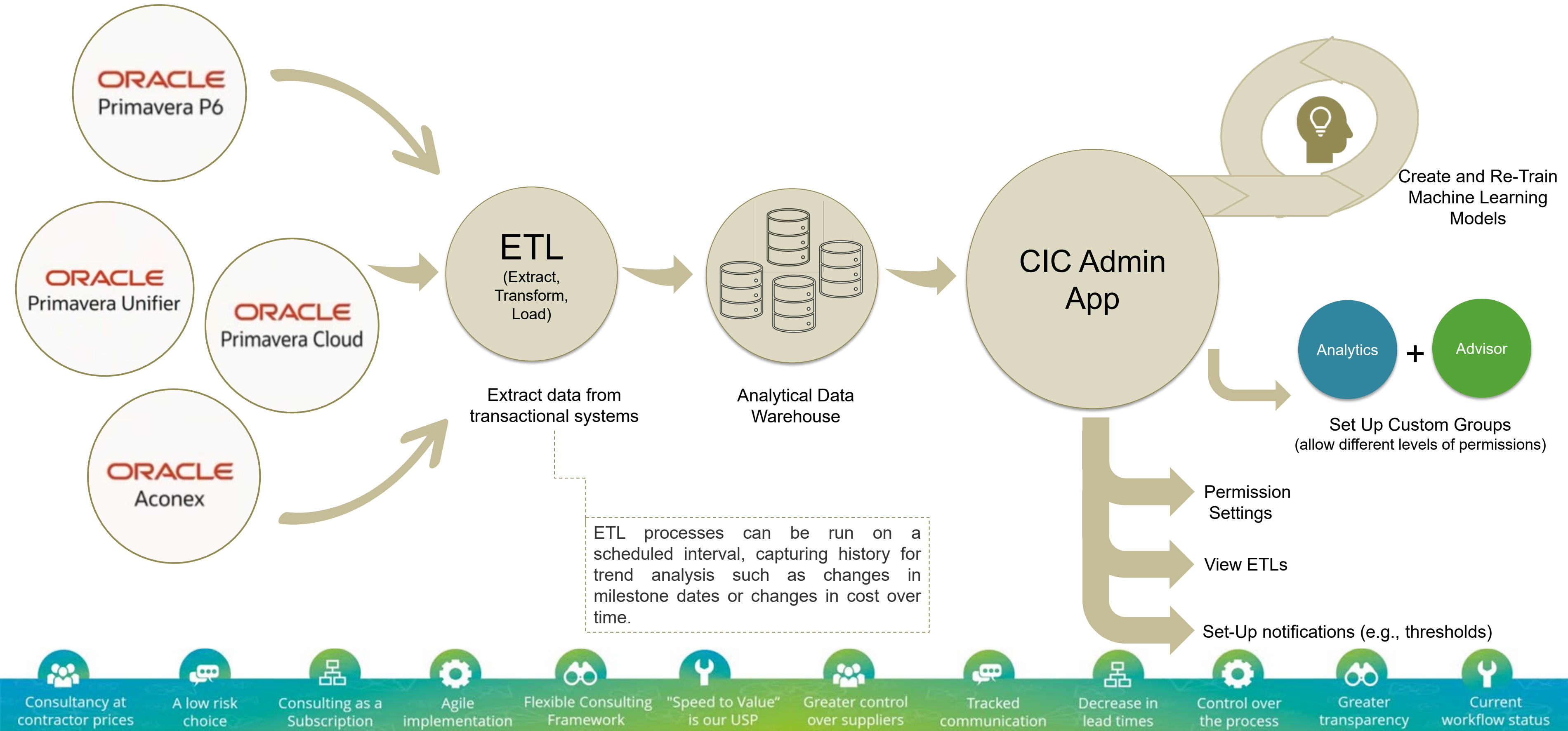


How we can use Data Analytics/ML within CIC



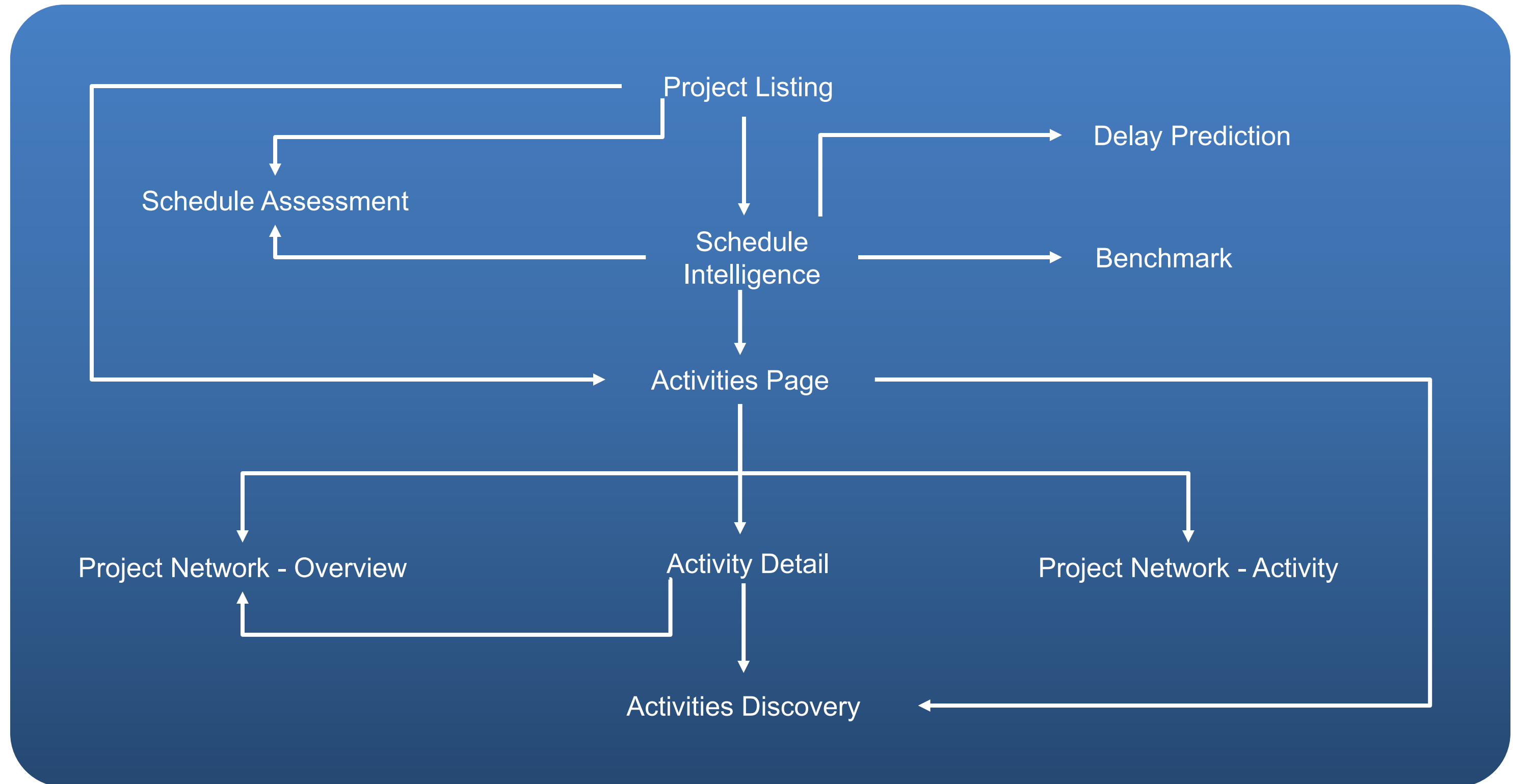


Oracle Construction Intelligence Cloud (CIC)





Oracle Construction Intelligence Cloud (CIC)





Continuously identify hidden risks that need to be actioned

Click the **Predicted Delayed Likelihood KPI** to launch the schedule intelligence page.
Use the page to view a summary of the project state and the likelihood of project delay.

Identify probable delay factors, view activity status, and determine schedule quality, and compare current project to similar projects in the past.

Predicted delay likelihood

Likelihood of project delay over 63D

99%

Use **Predicted Delay Activities KPI** answers the questions, which activities are causing the delay? And how do they fit in with the overall project schedule?

The network map lists all activities overlaid with its resources, predicted delay and provides a heat map identifies of activities that require attention.

Predicted delay activities

% of activities with predicted delay

23% of 13 activities

Use the **Schedule Assessment KPI** to answer, what is the quality of the project's schedule?

Use schedule assessments to inspect overall schedule health the project. Identify activities that do not conform to schedule standards prescribed by the industry or your organisation.

Schedule assessment

% of activities with schedule planning issues

46% of 13 activities



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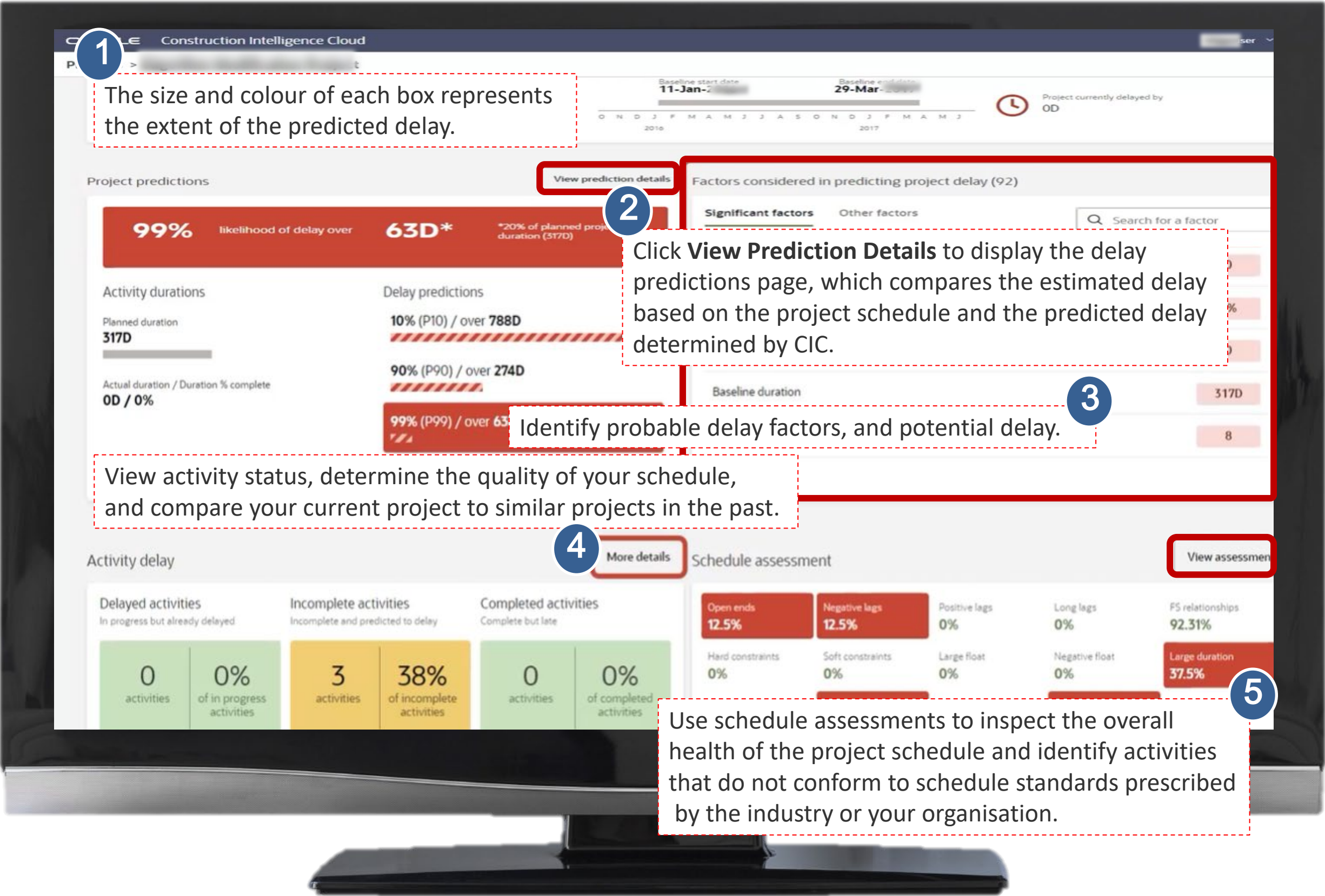
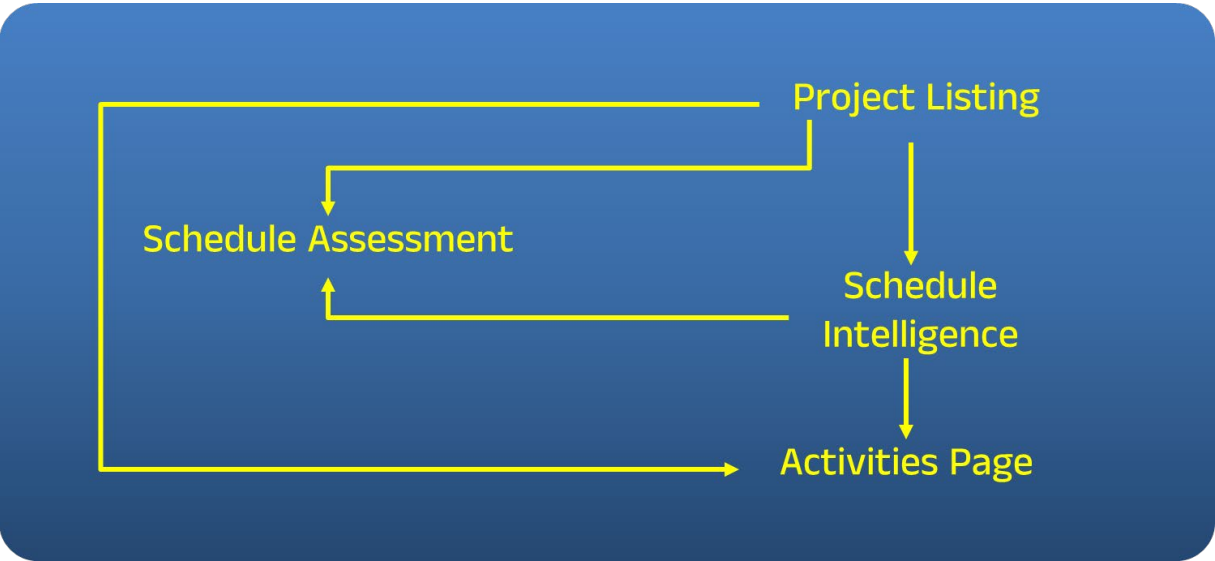
Greater transparency



Current workflow status



CIC Advisor continuously identifies hidden risks that need to be actioned such as schedule delays, poor schedule quality, budget over-runs, resource bottlenecks and process inefficiencies.

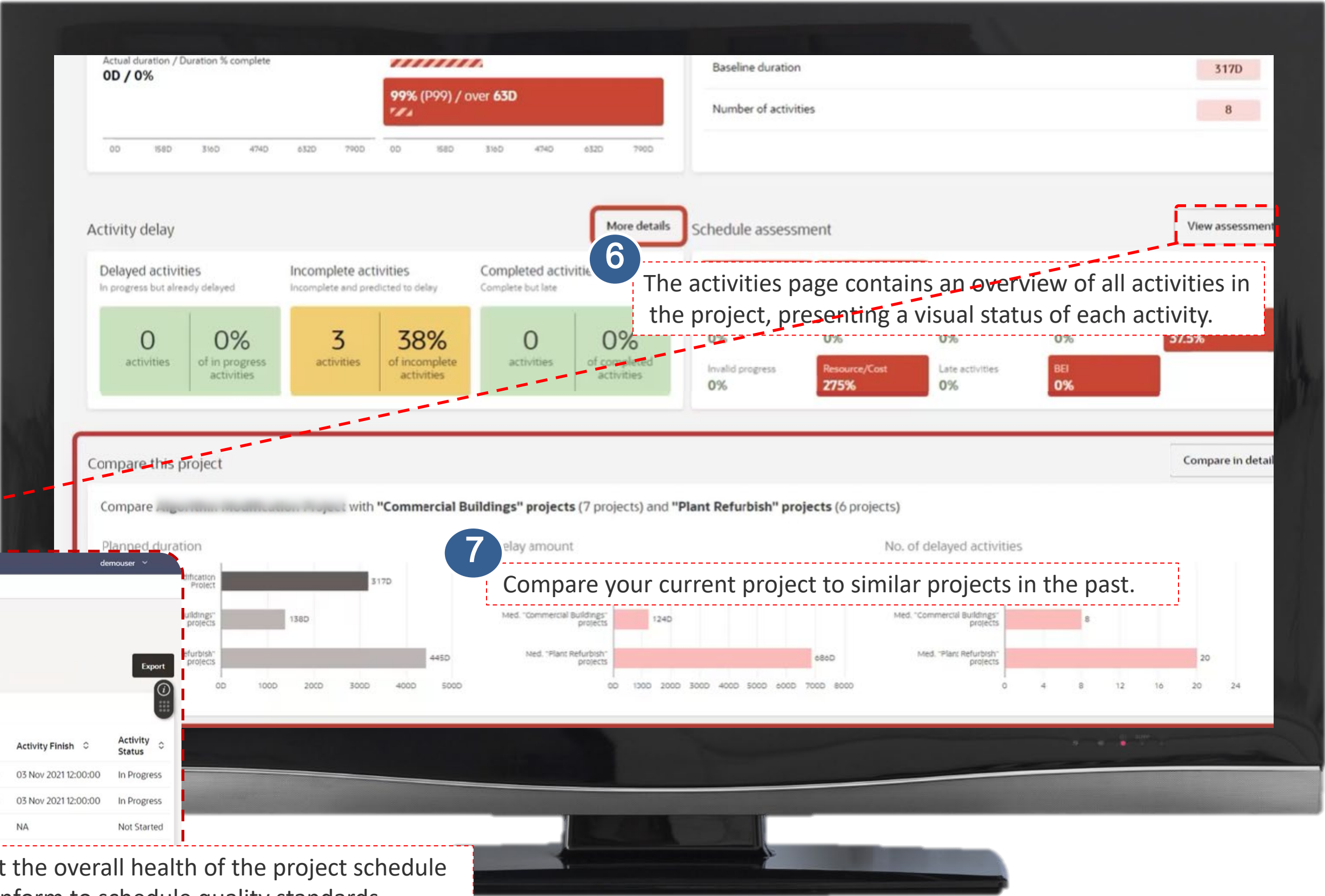




The activities page contains an overview of all activities in the project.

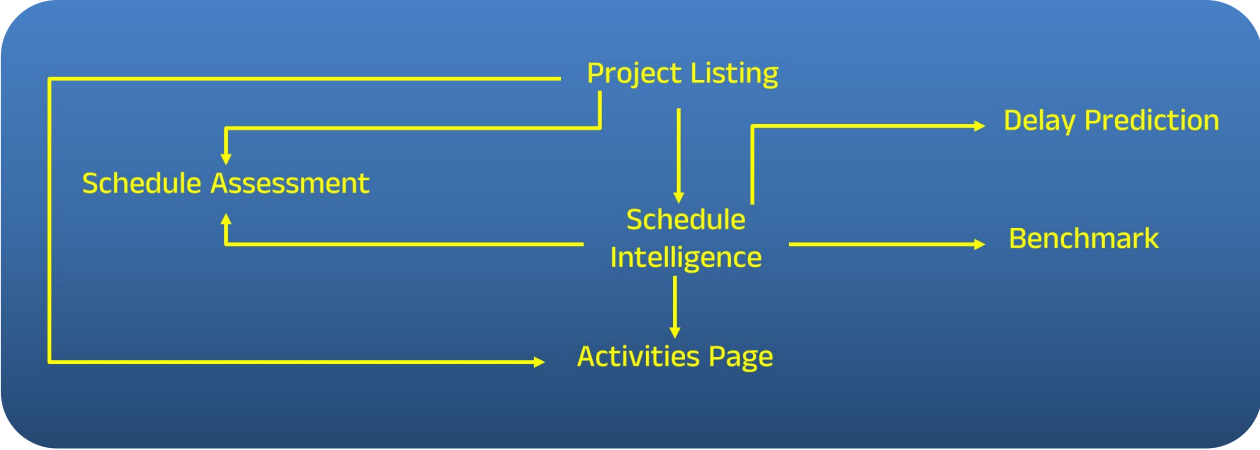
Schedule intelligence assesses the schedule quality of the plan.

Identifies activities that do not conform to schedule standards prescribed by your organisation.

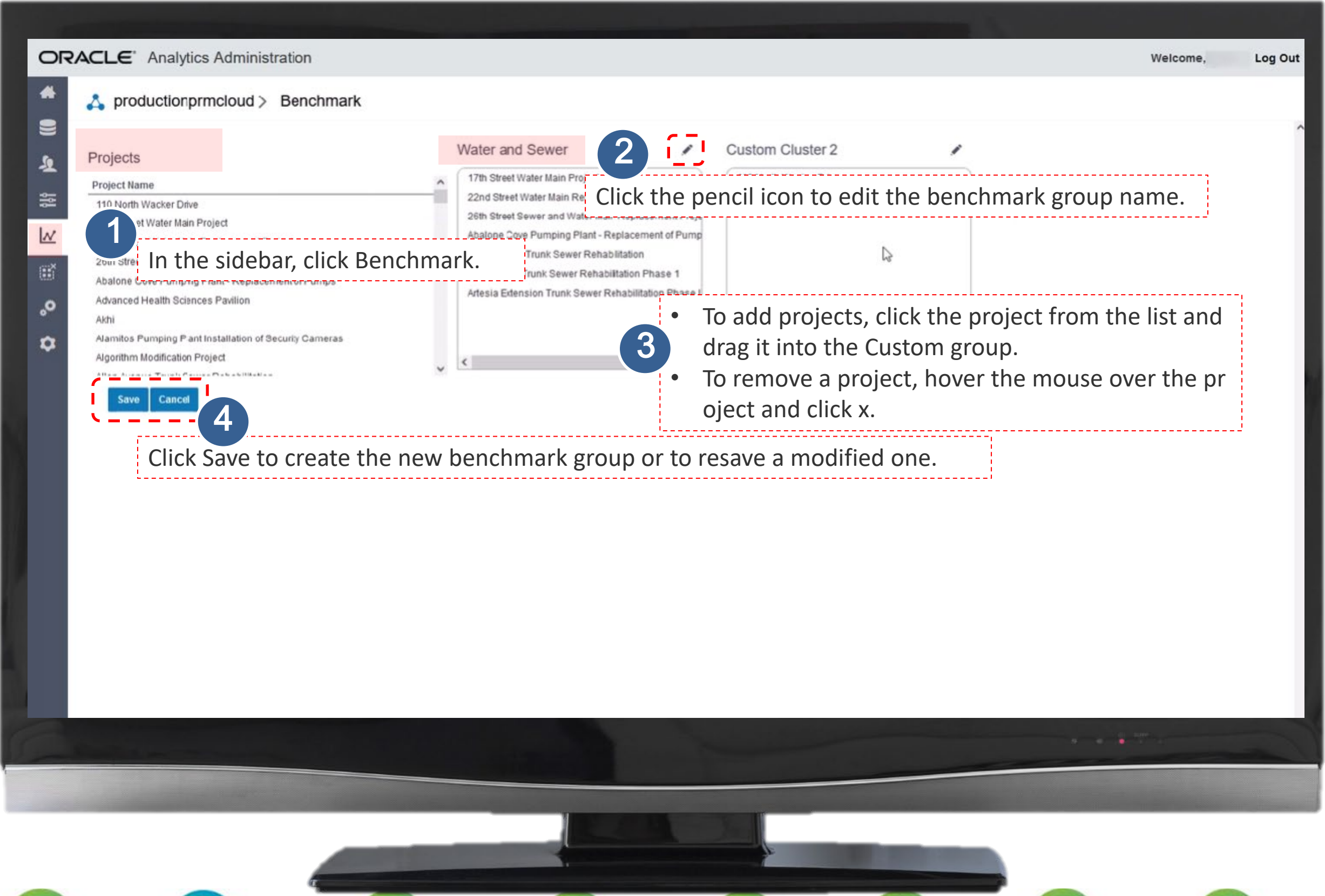




Configure benchmark groups to determine which complete or nearly complete projects should be used to compare the project feature in Advisor.



Configuring Benchmark Groups





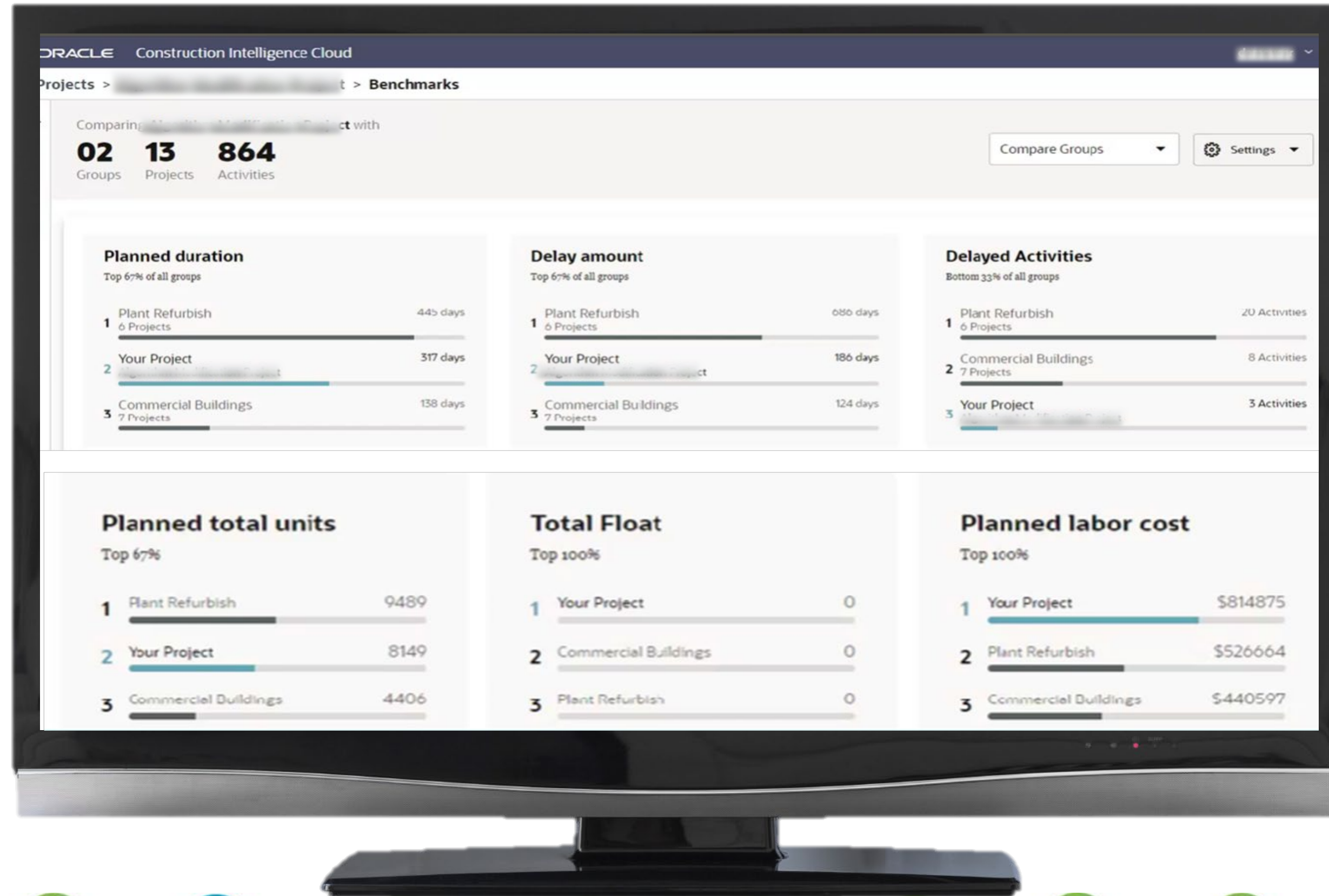
Configuring Benchmark Groups

Only two custom groups can be created but can be edited at will.

Create benchmark groups consisting of completed or near completed projects to gain insights to minimise delay in P6 and Primavera Cloud projects.

Enables corrective action based on similar past projects.

Each benchmark group can have a maximum of seven projects that are either complete or 85% to 90% complete.





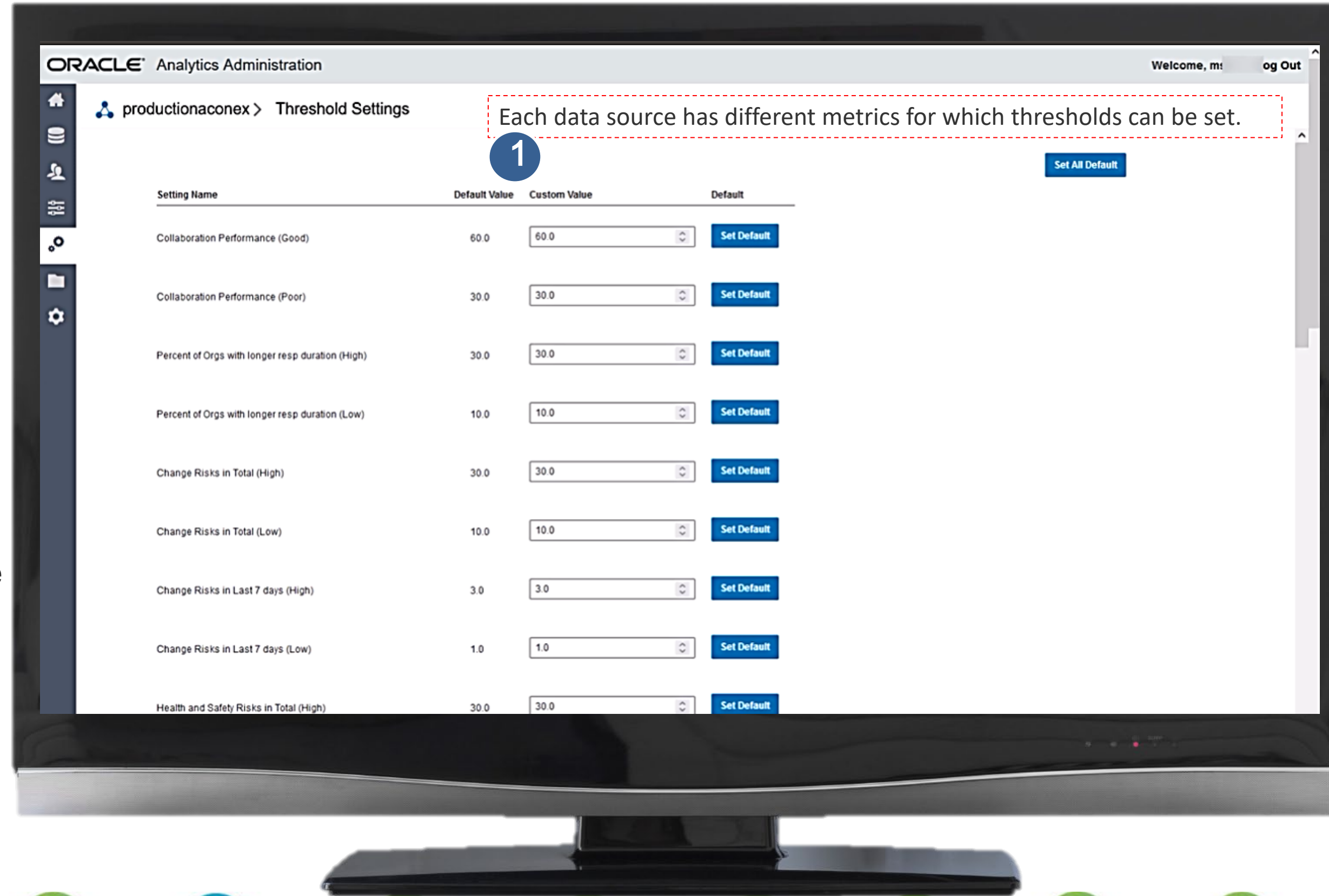
Configuring Threshold Settings

CIC advisor displays metrics in highlighted fields to enable quick visualisation of data.

Colours in the fields are based on an acceptable range of values called a threshold.

Configuring Threshold Settings for the red, amber, and green tiles.

Thresholds have default settings but can be personalised via CIC administration application.

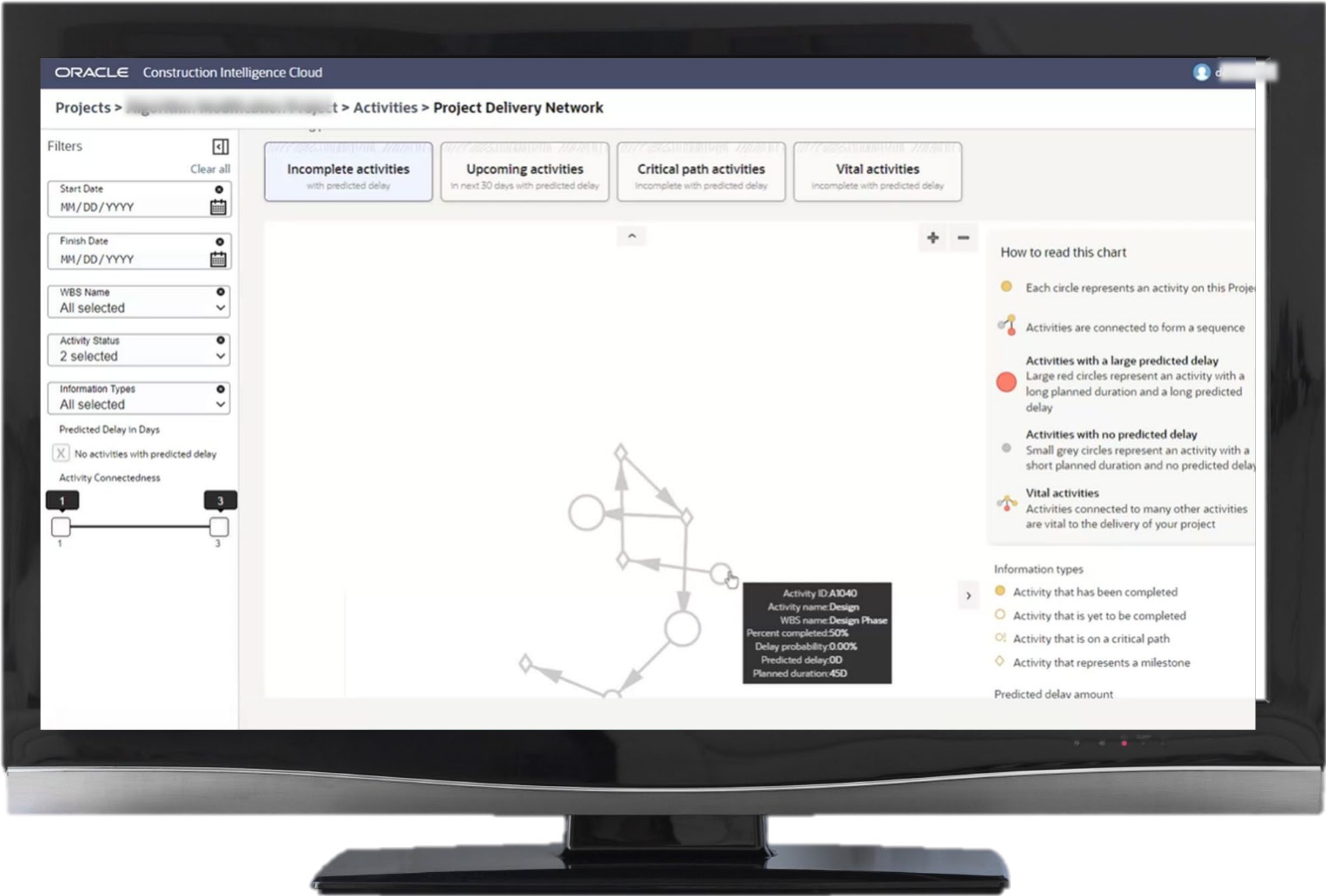
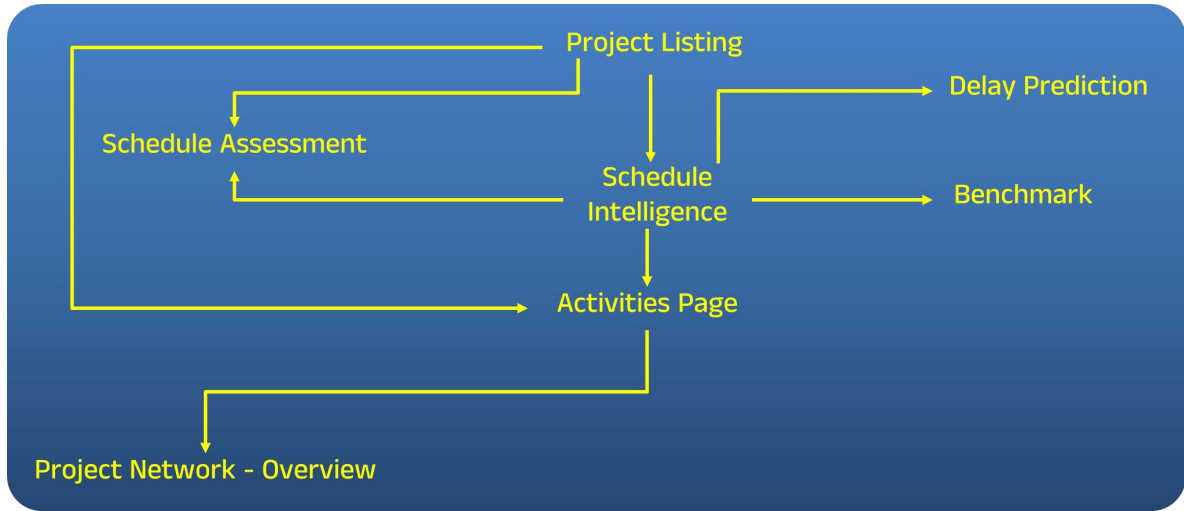




Click the Project Delivery button to see interdependencies in the Project Delivery Network.

Use the network map to view all activities, including critical path and milestones.

Each activity is overlaid with its resources and predicted delay.

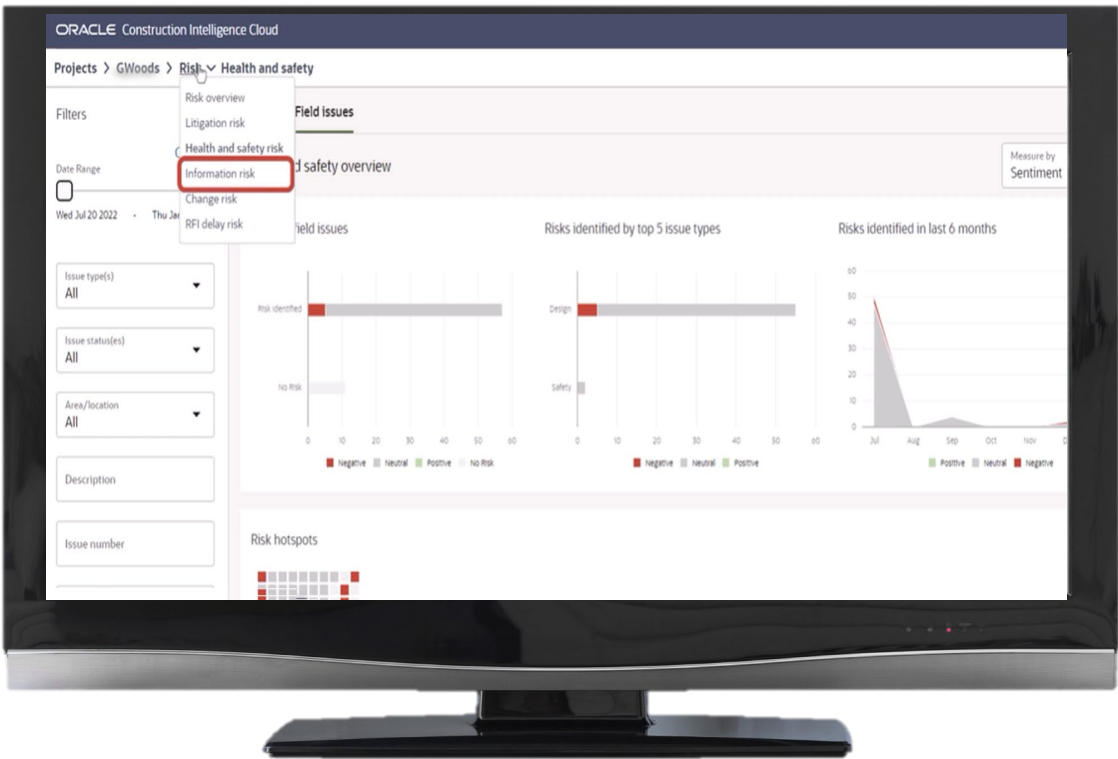
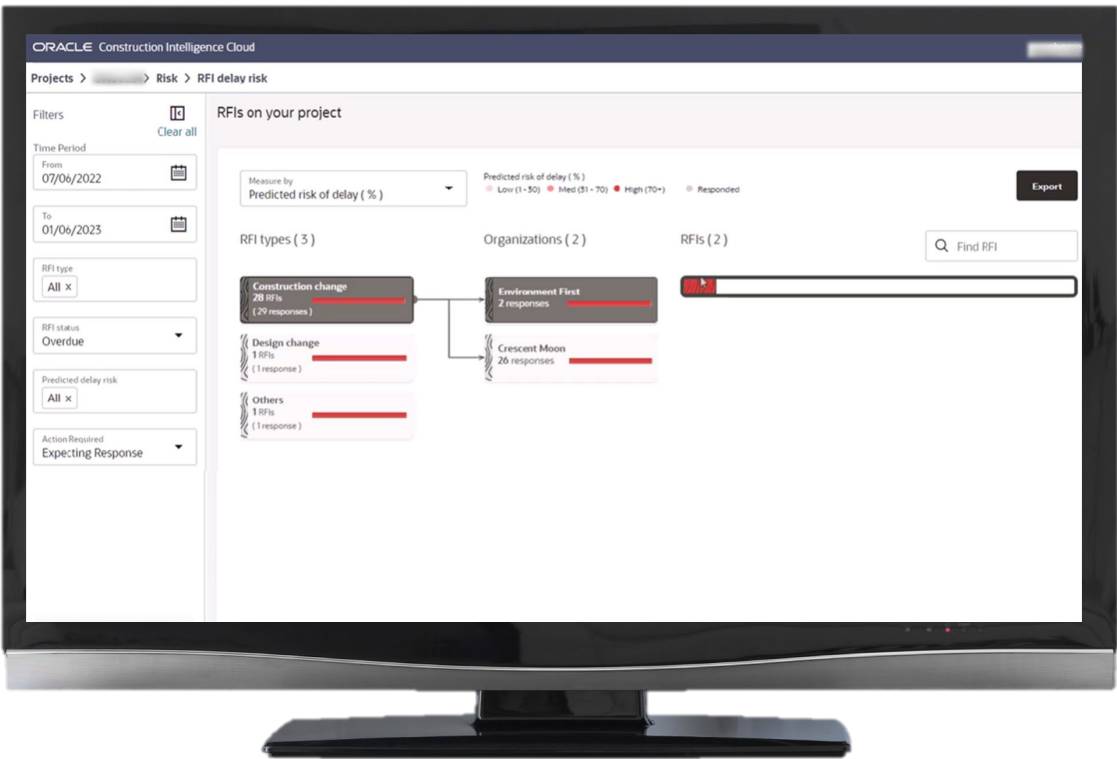
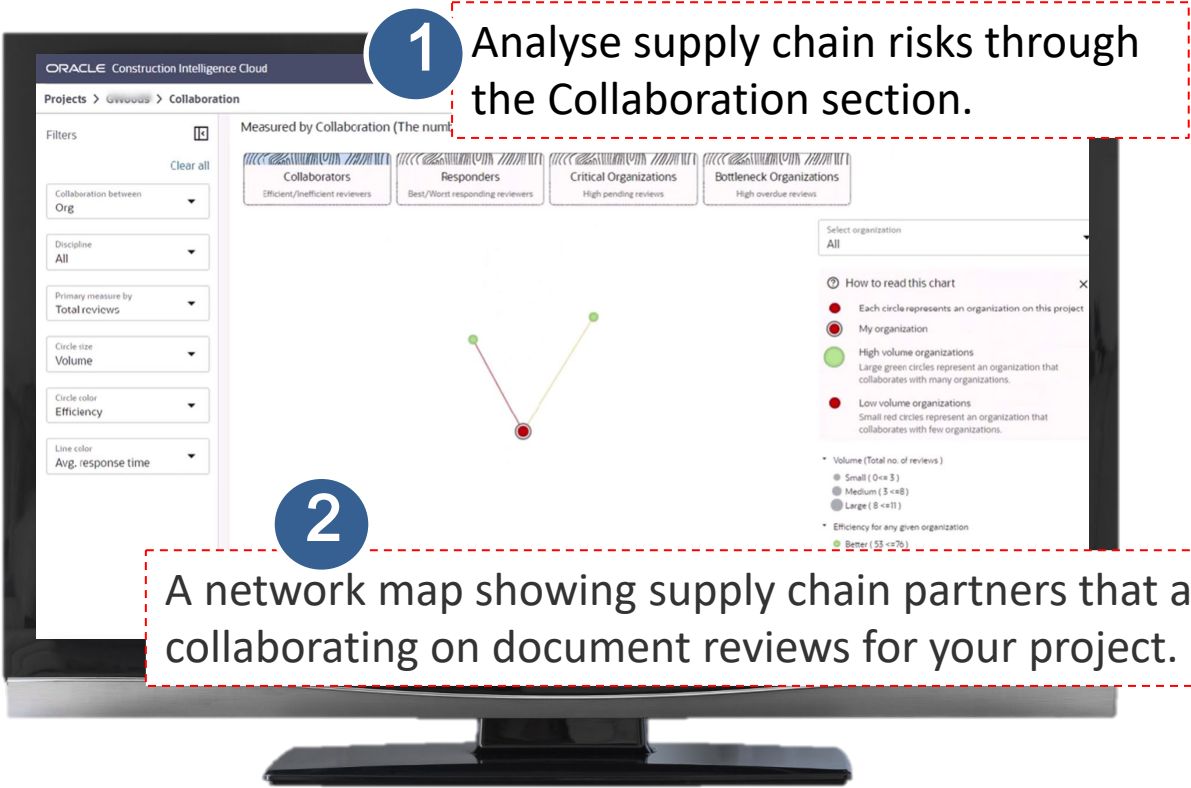
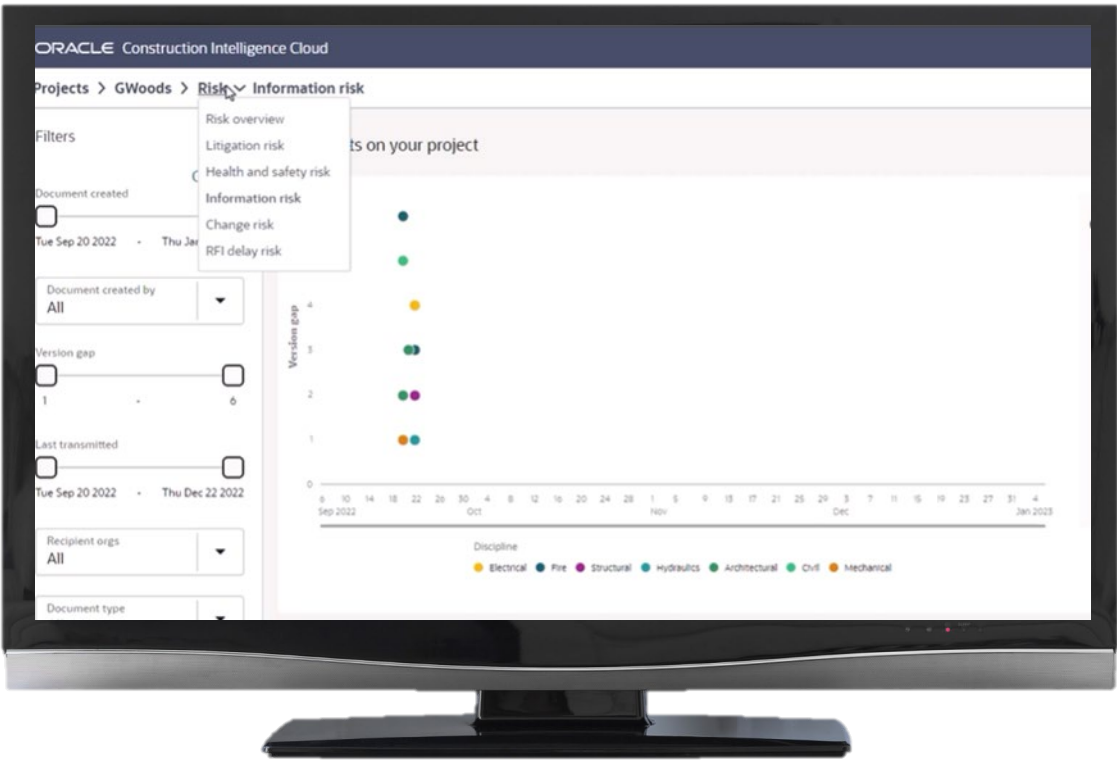




Analysing information risk through the Supply Chain

Mail collaboration is a network map of all project communications, showing which supply chain partners are holding up communications and other performance indicators.

We can track whether project information (RFIs) is in sync to predict the risk of delay for all those that did not respond in your projects, and other performance indicators.





Analysing litigation-based conversations

Intelligent Document Processing (IDP) solutions use AI technologies to analyse risks from e-mails.

Natural Language Processing (NLP) AI can plot these risks and how this developed over time and the key words being triggered.

We can identify litigation risks in Aconex Collaboration platform, by using AI to analyse conversations between stakeholders to plot the trend over time and then look at the distribution across project teams.

"On inspection, I have found that there is a crack in the concrete. Please fix this issue before you proceed any further as this is a breach of contract. No payment will be made, until this issue is resolved"

Litigation risk

"On inspection, there appears to be a crack in the concrete. I understand that extra time is needed to fix this and I am willing to accommodate an extension. Want to ensure there is no breach of contract at the end. Please fix this as soon as possible"

Not a litigation risk



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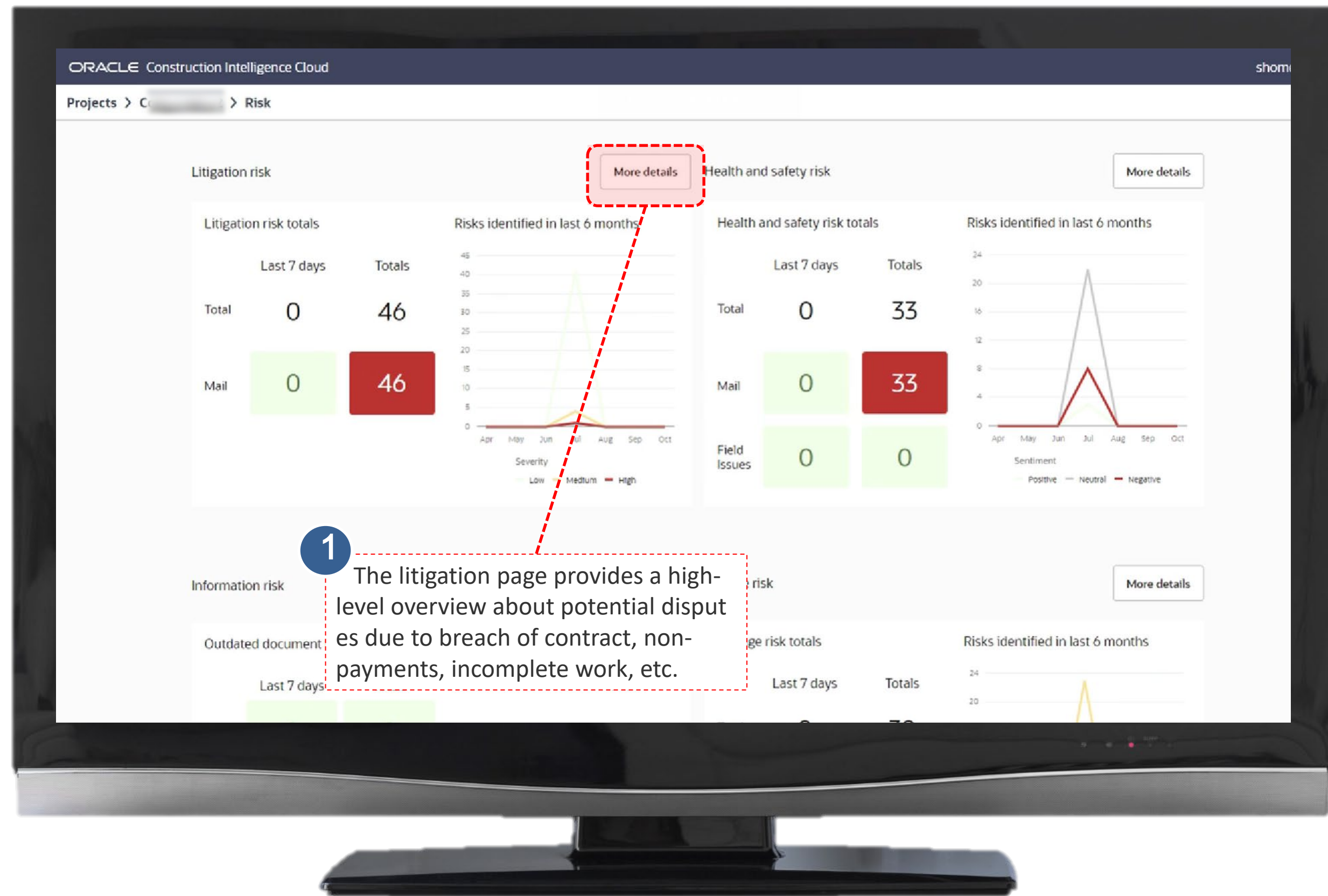


Analysing litigation-based conversations

The Risk Overview page summarizes the potential risks for this project focusing on litigation, health and safety, information, change, and RFIs.

CIC uses specific keywords and sentiment analysis to look at the context of your mail correspondence, and field issue reports to assess risks.

It then determines whether there is a risk and displays it visually.





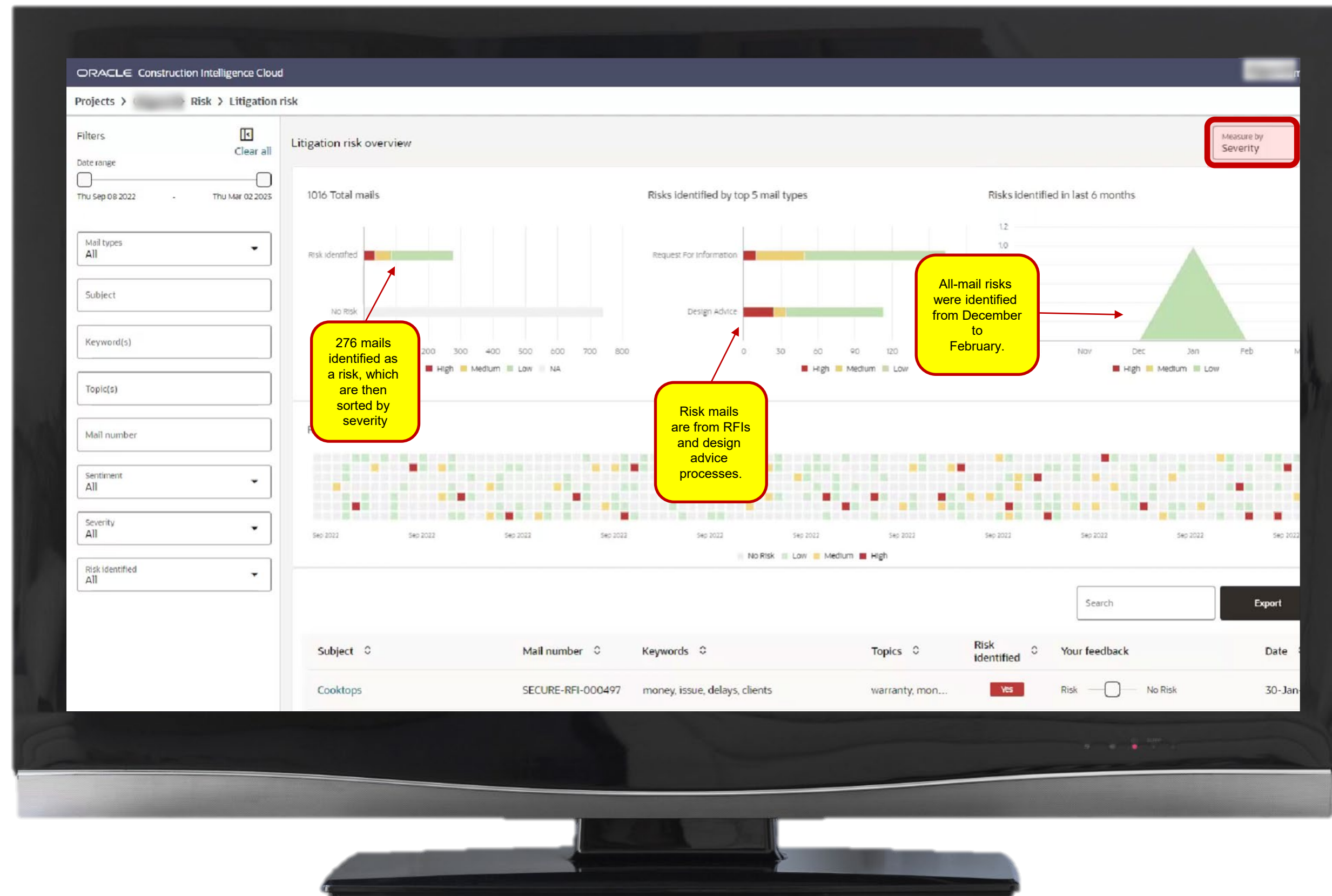
Analysing litigation-based conversations

We can measure the severity of the risk.

The Litigation page provides a high-level overview of potential disputes and risks, enabling you to focus on mitigation efforts.

The page starts with a trio of graphs that highlight different categories mails can be organised into.

We can also plot risk hotspots over time organised by date.





Analysing litigation-based conversations

In addition to measuring the **Severity** of the risk we can also measure the **Sentiment**.

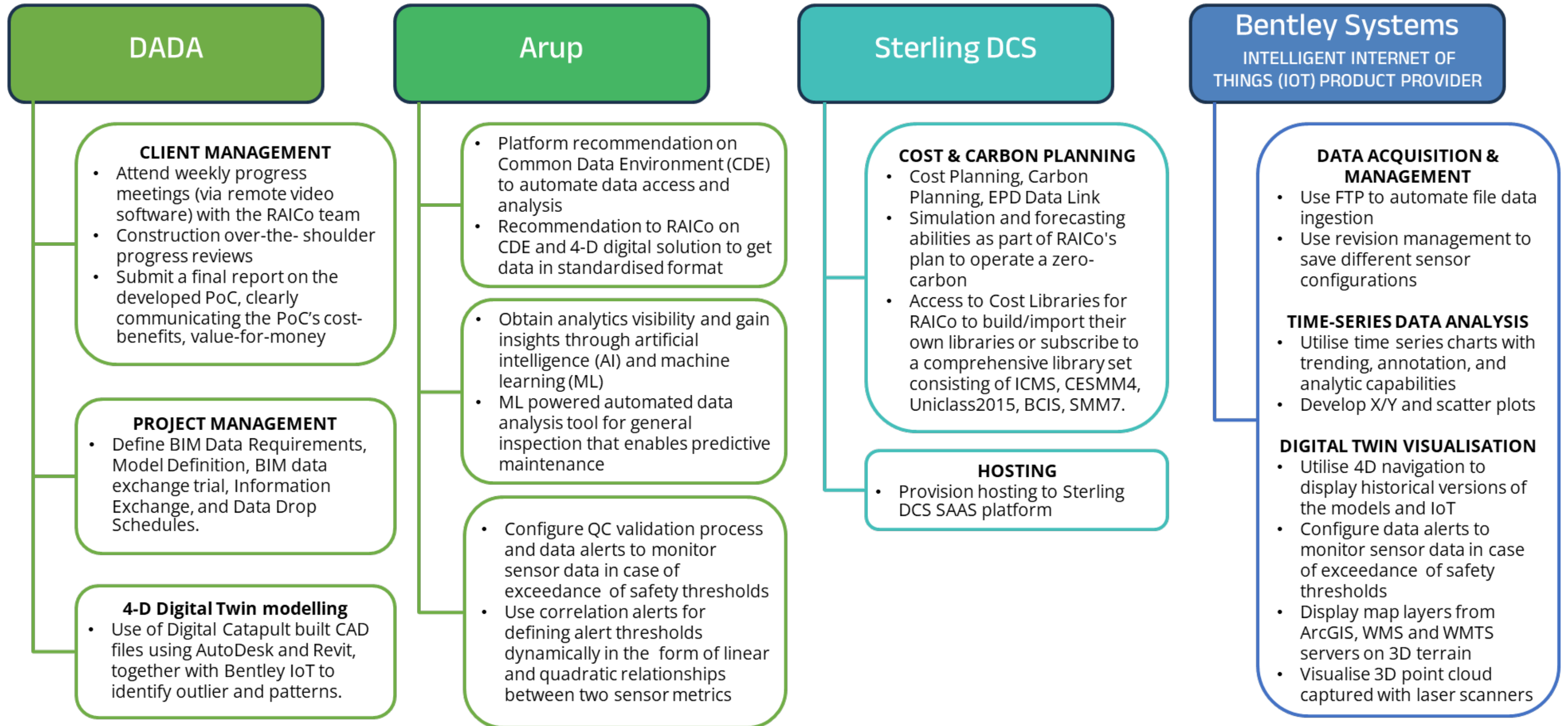
Click the Menu and select Sentiment.

Now, all graphs and hotspots reflect the sentiment detected in the mails, negative, positive, or neutral.





How we are extending this into Digital Twin solutions



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Consulting as a Subscription



Agile implementation



Flexible Consulting Framework



"Speed to Value" is our USP



Greater control over suppliers



Tracked communication



Decrease in lead times



Control over the process



Greater transparency

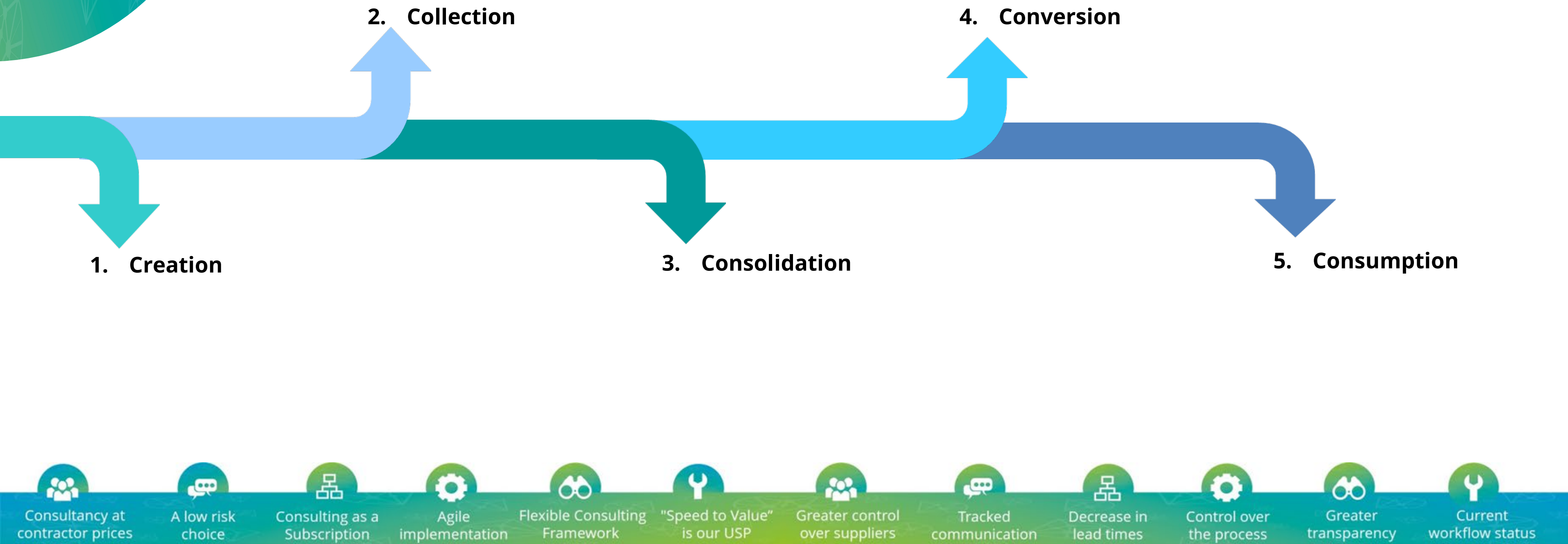


Current workflow status

How-to-Start your Data Journey

How-to-Start

"Codify your Data-Lifecycle"



Configure ETLs from Source Applications

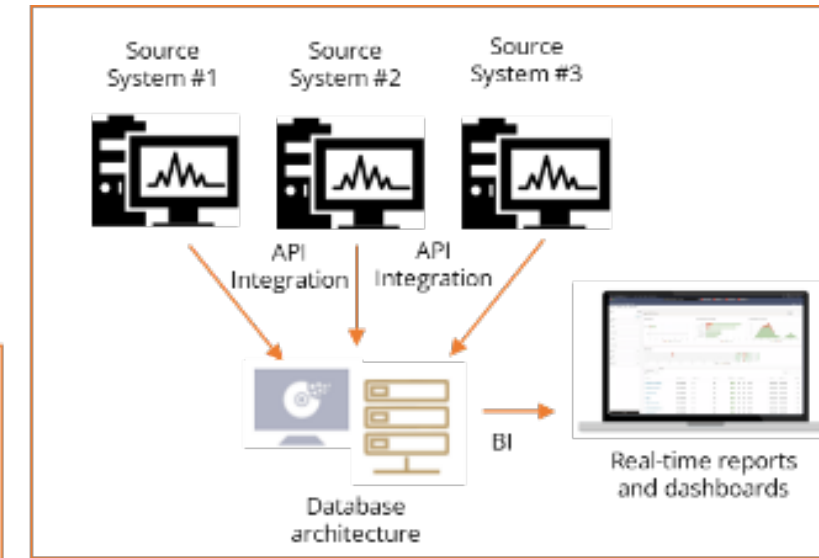
High

Complexity

Low

Real-time reports produced via API integration from different sources.

3



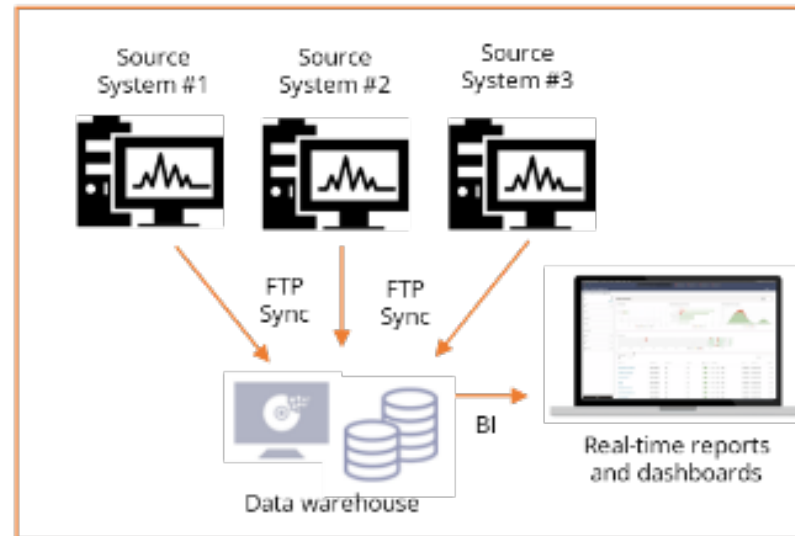
High

Scalability

Low

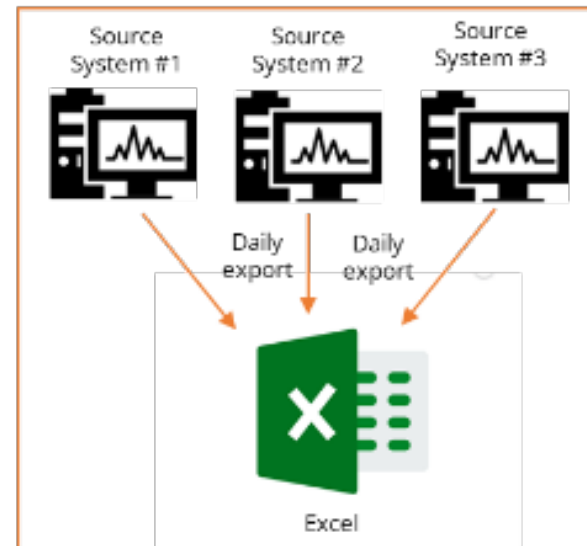
2

Near-time reports produced from different silo systems via FTP sync.



1

Open and extendable data sources with local files stored in local drives and consolidated manually centrally.



Short

Time to value

Long



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Current workflow status



Checklist to consider in beginning your Data Journey

Assign user access and permissions



Review Data from Delivery Partners and Extended Enterprise



Configure ETLs, and prepare Data Sets from Source Application



Configure Benchmark Groups



Create and Re-Train Machine Learning Models



Configure Threshold Settings



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Current workflow status



Verifying the problems that you are trying to solve

Schedule

Delayed projects

Cost

Cost blow outs

Poor margins

Poor estimates

Ineffective
contracts

Quality

Poor quality

Rework

Safety

Incidents

Near-misses

Risk

Identification

Mitigation

Response



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Current
workflow status



Identify what you already have – do a *data stock take*!

Schedule

Activities and Sequencing

Milestones

Resources

Constraints and Dates

Progress:
Expected vs. Actual

Budget

Estimate and costings

Activity costs,
Billing and Invoices

Personnel and Partner costs

Change requests and orders

Payment claims,
Cost sheets

Quality

Plans

Issues, Rework and Detects

Variations

Impact – Cost, Schedule

Sub-Contractors / Trades

Safety

Plans

Training

Issues, Dates Types

Sub-Contractors / Trades

Impact-Costs, Schedule

Risk

Risks identified

Risk types and Lessons Learnt

Impact & Owners

Risk assessments Mitigations

Realisation metrics



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Current workflow status



Checklist to consider in beginning your Data Journey

Assign user access and permissions

Create and Re-Train Machine Learning Models

Configure Threshold Settings

Configure ETLs, and prepare Data Sets from Source Application

Configure Benchmark Groups



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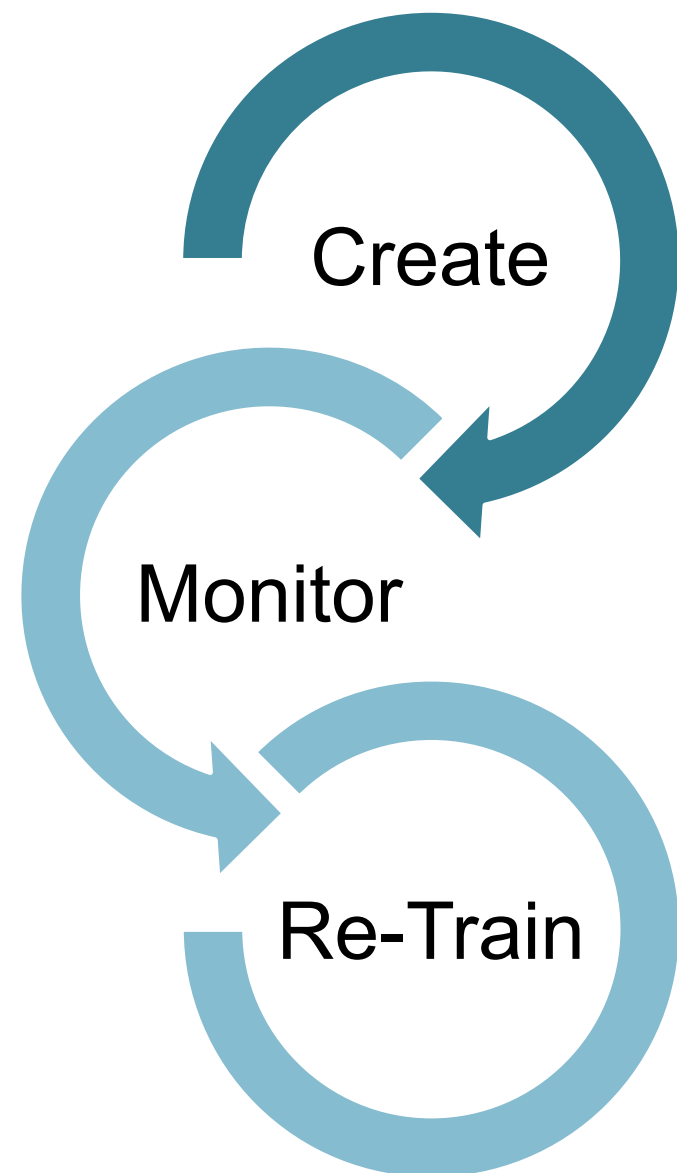
APPENDIX:

1. Overview Machine Learning, and how to retrain Machine Learning Models with your real-life project data and fine-tuned to suit specific portfolios.
2. How-to-Start your Data Journey: Building your Data Sets, Visualisations.





Descriptive Analytics vs Predictive Analytics



Descriptive Analytics

What happened in the past?
By using stored data

Involves Data Aggregation and
Data Mining

The process of finding useful
and important information by
analyzing huge data.

It provides accurate data in
reports using past data.

It allows for a reactive approach.

Predictive Analytics

What might happen in the
future? By using past data and
analyzing it

Involves statistics and forecast
techniques

This process involves
forecasting the future of the
company, which is very useful.

Results are not accurate. It will
not tell you exactly what will
happen, but it will tell you what
might happen in the future.

This a proactive approach.



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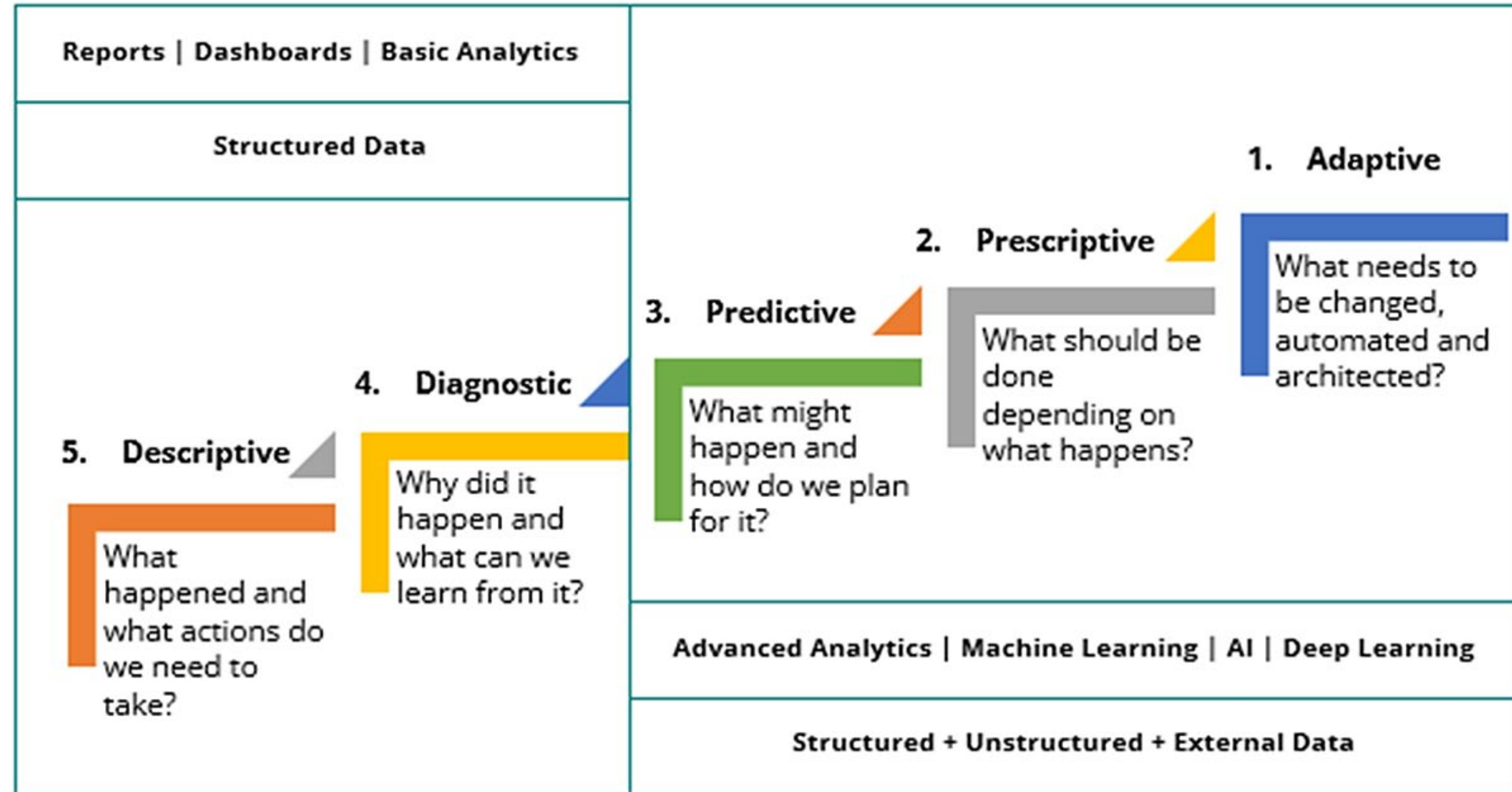
Current
workflow status



Descriptive Analytics vs Predicative Analytics

Model Journey

1. Data access and collection
2. Data preparation and exploration
3. Model build and train
4. Model evaluation
5. Model deployment
6. Model monitoring





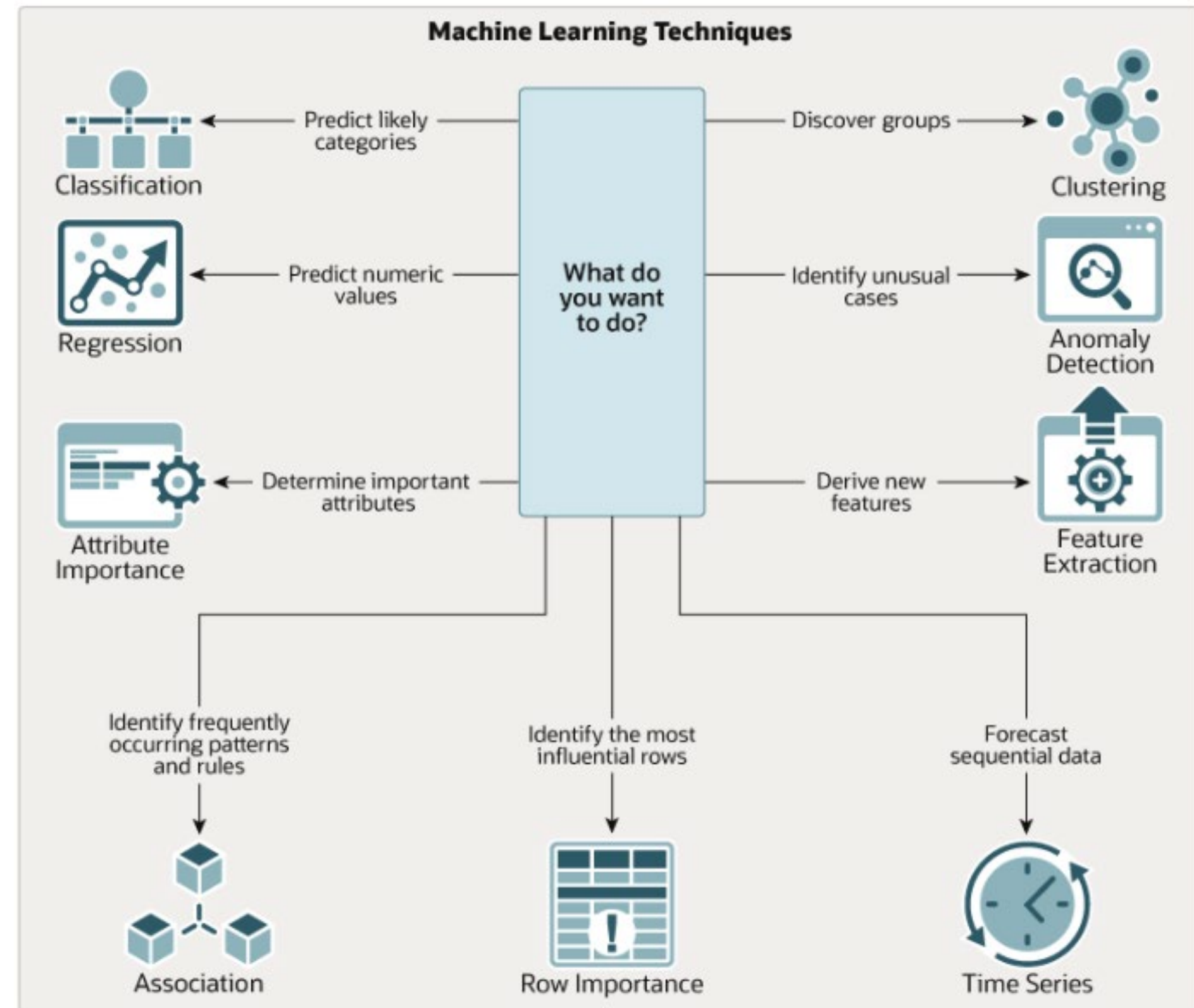
Different Machine Learning Algorithms

Each **Machine Learning technique** specifies a class of problems that can be modelled and solved.

It is useful to understand the difference between machine learning techniques and algorithms to get the best of Machine Learning models.

Machine learning deals with techniques that enable devices to learn from their own performance and modify their own functioning.

The following illustration provides an idea of how to use Oracle machine learning techniques.



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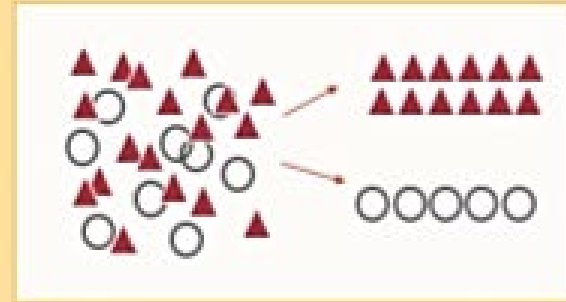


Current workflow status

Types of Oracle Machine Learning Algorithms

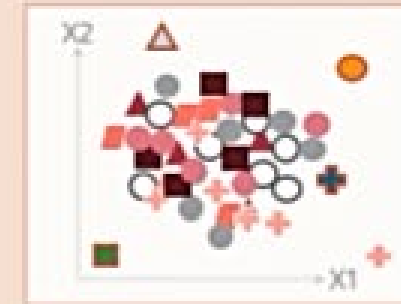
Classification

- Naïve Bayes
- Logistic Regression (GLM)
- Decision Tree
- Random Forest
- Neural Network
- Support Vector Machine
- Explicit Semantic Analysis



Anomaly Detection

- One-Class SVM



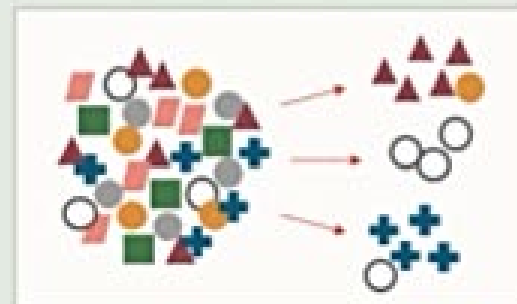
Time Series

- State-of-the-art forecasting using Exponential Smoothing
- Includes all popular models e.g. Holt-Winters with trends, seasons, irregularity, missing data



Clustering

- Hierarchical K-Means
- Hierarchical O-Cluster
- Expectation Maximization (EM)



Association Rules

- A Priori/Market Basket

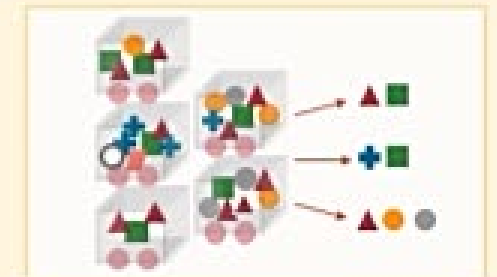
SQL Analytics

- SQL Windows, SQL Patterns, SQL Aggregates



Predictive Queries

- Predict, Cluster, Detect, Features

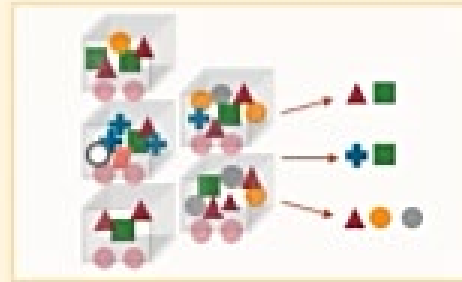




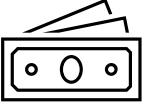
Oracle Machine Learning Algorithms

Predictive Queries

- Predict, Cluster, Detect, Features



- Construction Intelligence Cloud (CIC) uses machine learning models to make predictions about what will happen on a project.
 - There are two main components to a model - a problem and a feature.
1. A Problem represents reoccurring challenges that are widespread across the construction industry.
 2. Features are categories of data from a data source. The available features differ for each data source.

Problem		Feature	
Delay		Baseline	
Change Request		Activity	
Health & Safety		Cost	
Litigation			



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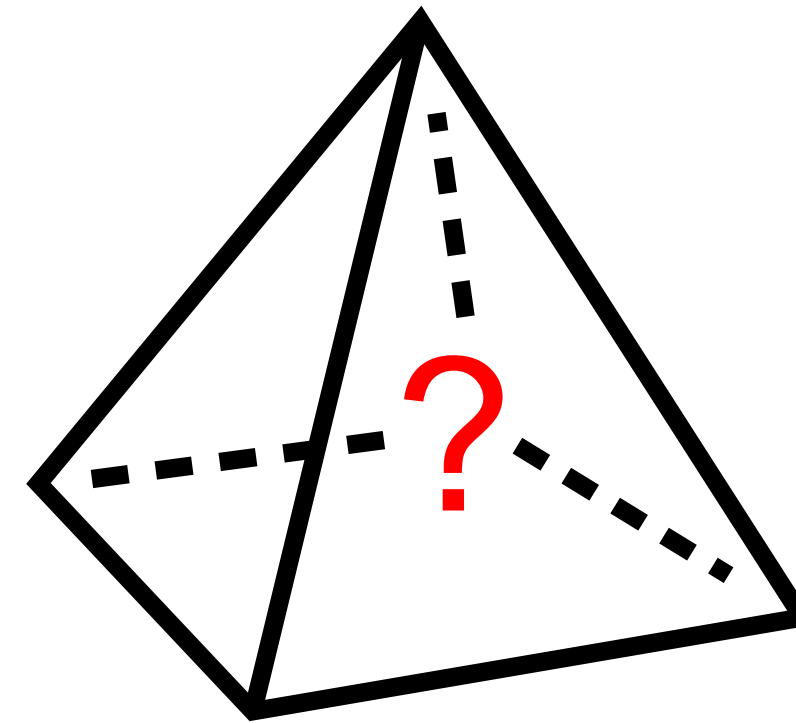
Training your Model

Construction Intelligence Cloud (CIC) comes with multiple predefined problems sets for each data source.

CIC comes with a **SEED MODEL** for each problem that is based on default features.

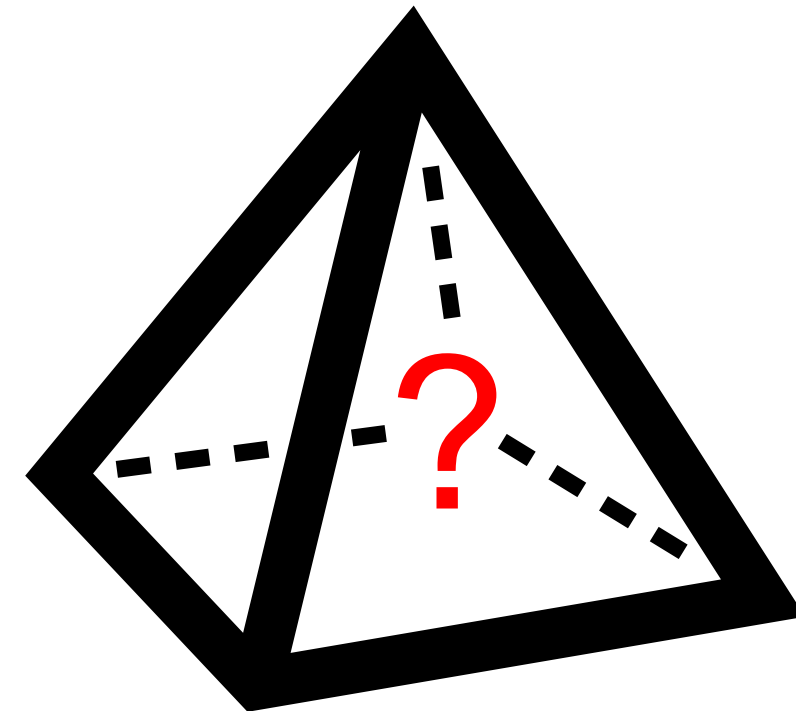
As part of customer onboarding, your Seed Model is trained with your company data on all features.

We create a **NEW MODEL focused** on specific features to ensure that CIC's predictions reflect how your company runs projects.



Seed Model

- Relationship Lag
- Labour Units
- Duration
- Risks
- Costs
- Resource Utilisation



New Model

- Baseline Labour Units
- Labour Units
- Duration
- Non-Labour Costs
- On-time rate
- Resource Utilisation



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Current workflow status



The CIC Admin Application provides an easy way to create, monitor, and retrain machine learning Models.

However, you can only select one model for prediction for each problem.

This example will focus on cost.

We will set the Features we want, and then click the Save button and then the Train Models button.

ORACLE Analytics Administration Welcome, weblogic Log Out

Admin > ML Workbench

Data Source: 3 - staretiprm - PRMCLCLOUD

Problem: Activity Delay Not Started

Models

Model Name	Prediction Enabled	Training Enabled	Select Group	Accuracy	Precision	Recall	MAE	R2	RMSE	Create Date	Update Date	Train Status	Train Start Time
SeedModel	☒	☒	All	0.9	0.9	1	449.29	-1K	493.94	2022-11-18 12:16:34.0	2022-11-30 08:07:46.0	Completed	2022-11-30 08:23:26
SeedModel-customerData	☐	☒											
MS Cost2	☐	☒											
MS Cost	☐	☒											

Features of MS Cost

Feature	Mandatory	Enabled
Risk exposure for break	☐	☐
Same project delay rate	☐	☐
Same project on-time rate	☐	☐
Score for risk threats	☐	☐
Variance-baseline project finish date	☐	☐
Variance-baseline project start date	☐	☐
Variance-predecessor baseline finish vs late finish	☐	☐
Variance-predecessor baseline start finish	☒	☒
Variance-predecessor baseline start vs late finish	☐	☐

MS Cost Description

Buttons: Train Model(s) Save Cancel

No training records available for staretiprm

1 The ML Workbench page displays the ML models developed for this problem in this data source.

2 To retrain P6 and Primavera Cloud models, navigate to a problem, confirm the training enabled checkbox is marked next to the model.

3 To retrain P6 and Primavera Cloud models, navigate to a problem, confirm the training enabled checkbox is marked next to the model.

3 Key Terms

Accuracy

Accuracy reflects the number of correct predictions to the number of total predictions.

Precision

Precision correlates the number of correct predictions with how many actual delays occurred.

Recall

Recall represents how well the model did at predicting actual delays based on the actual data

Accuracy, precision, and recall should be between 0.8 to 0.92 so the models are not overtrained or undertrained, which may result in inaccurate predictions.

Accuracy
Precision
Recall



- If **Accuracy** equals 0.85, then 85 times the model predicted correctly out of 100 times.
- If **Precision** equals 0.8, then 80 activities were *actually delayed* out of the 100 predicted to be delayed.
- If **Recall** equals 0.9, then out of the 100 activities *actually delayed*, 90 of them were correctly predicted to be delayed.





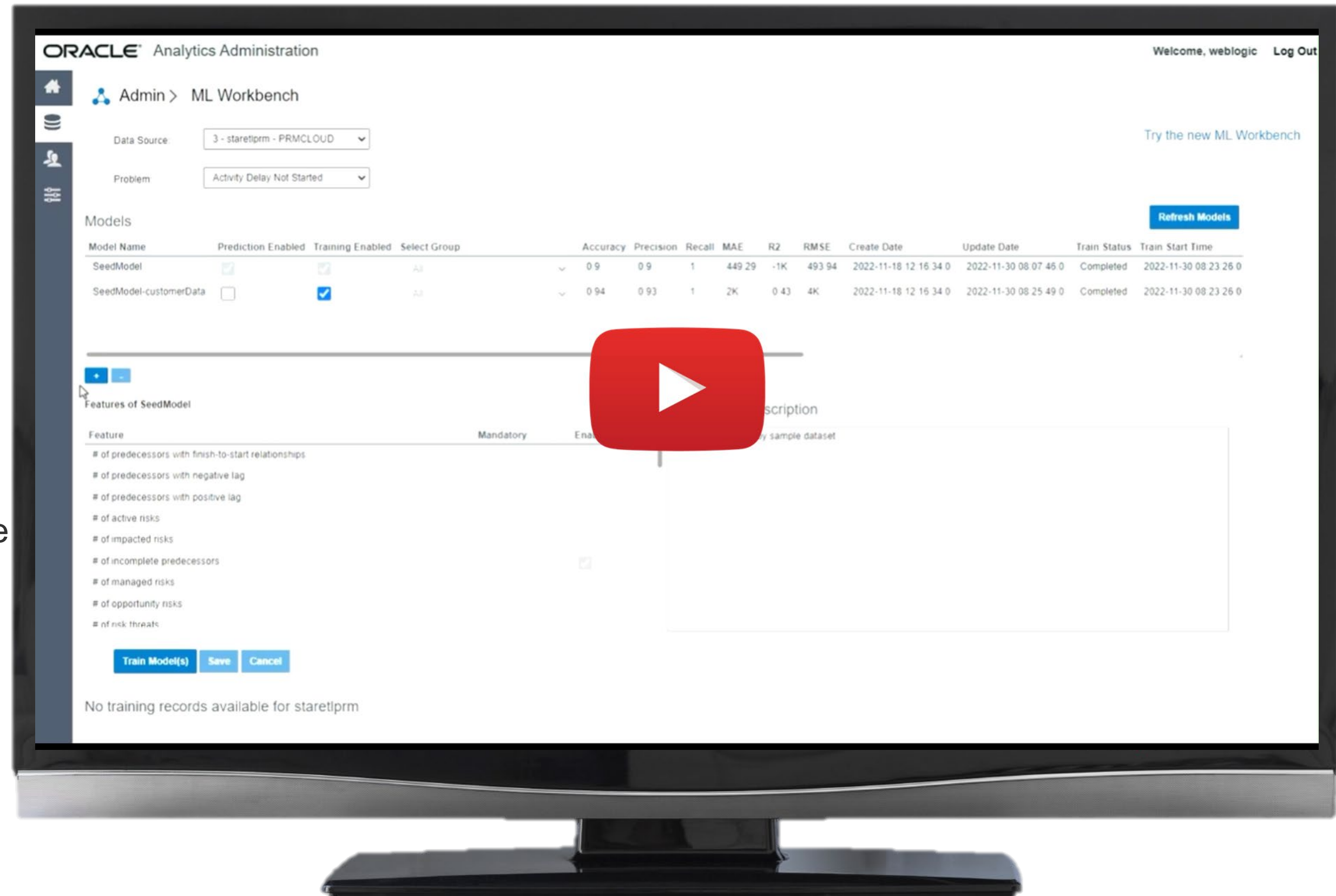
CIC uses ML models to make predictions.

Here, we train a default seed model with your company data on all features.

This ensure that CIC's model predictions reflect how your company runs projects.

The Admin App provides an easy way to create, monitor, and retrain machine learning models.

The ML Workbench page displays the machine learning models developed for this problem in this data source.



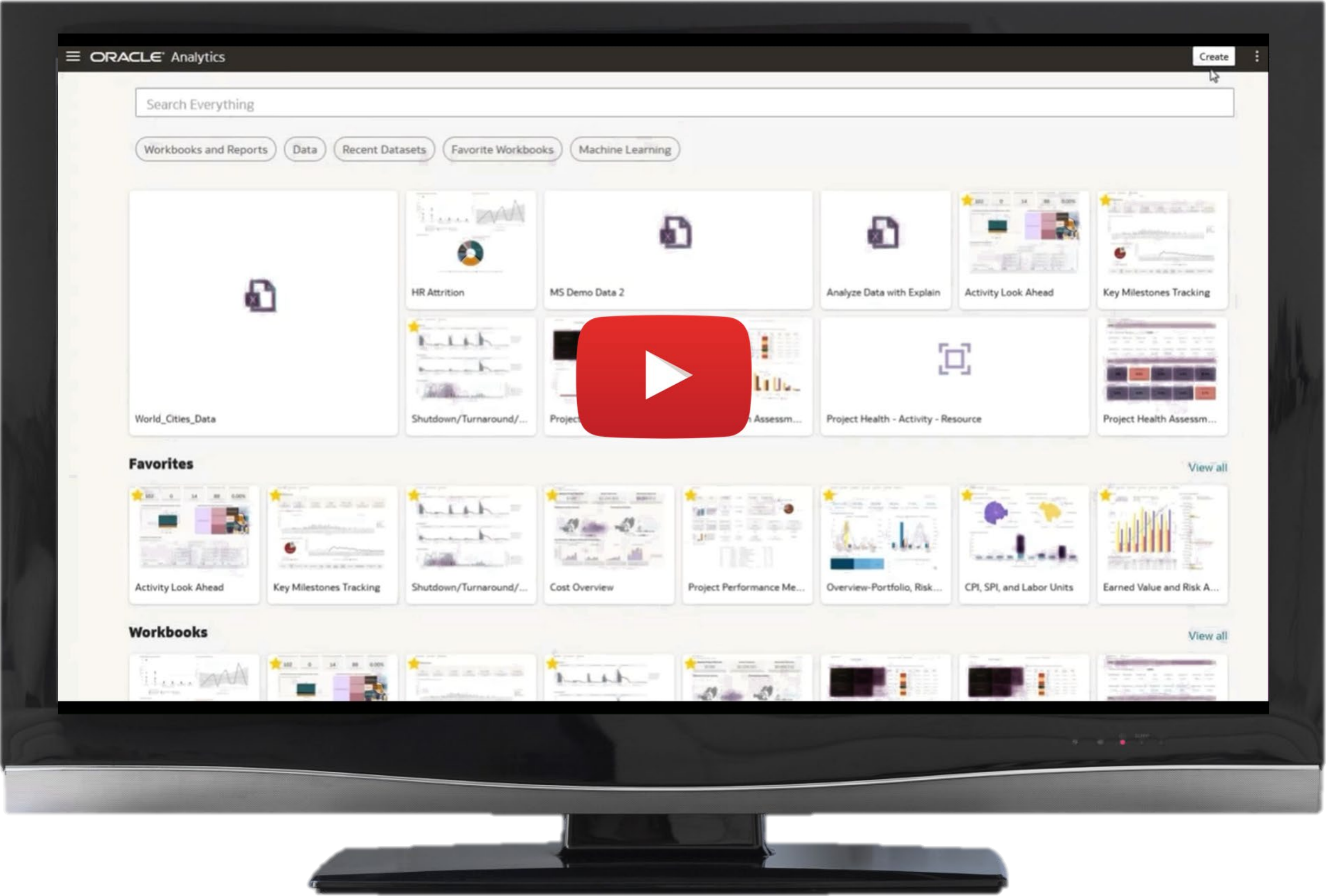


CIC analytics uses datasets created from spreadsheets or Local Subject Areas, along with subject areas, to build visualisations.

Here, we show how you can create a data set from a **Local Subject Area**, and then add additional data from Excel.

A Local Subject Area is a small subset of data from another Oracle application.

Here, we create the data set and specify the subset of data to use.





CIC Analytics enables you to build Visualisations.

You can use pre-built visualisation for subject areas as well as third party data from Excel spreadsheets.

Here , we will show how you Covert/Clean Data, and then save it as a Data Set and build a Visualisation using a Canvas.

