

# Protecon BTG

*Let's Bridge The Gap Together*

The logo features a central white circle with the text "PROTECON" in large black letters and "SMART-PMS" in smaller blue letters below it. Above the text are several colorful, overlapping arches in shades of red, orange, and yellow. Surrounding this central circle is a circular ring divided into four colored segments: a blue segment at the top left labeled "Infrastructure", an orange segment at the top right labeled "Oil & Gas", a red segment at the bottom right labeled "Claims & Arbitration", and a red segment at the bottom left labeled "Project Management".



**Why PMO needed - To minimize Cost/Time Overruns**  
As per Ministry of Statistics & Program Implementation, the expected Cost overruns for 364/1476 Projects is 4.5 Lakh Crores and 756/1476 projects are in delays ranging from 1 to 5 years

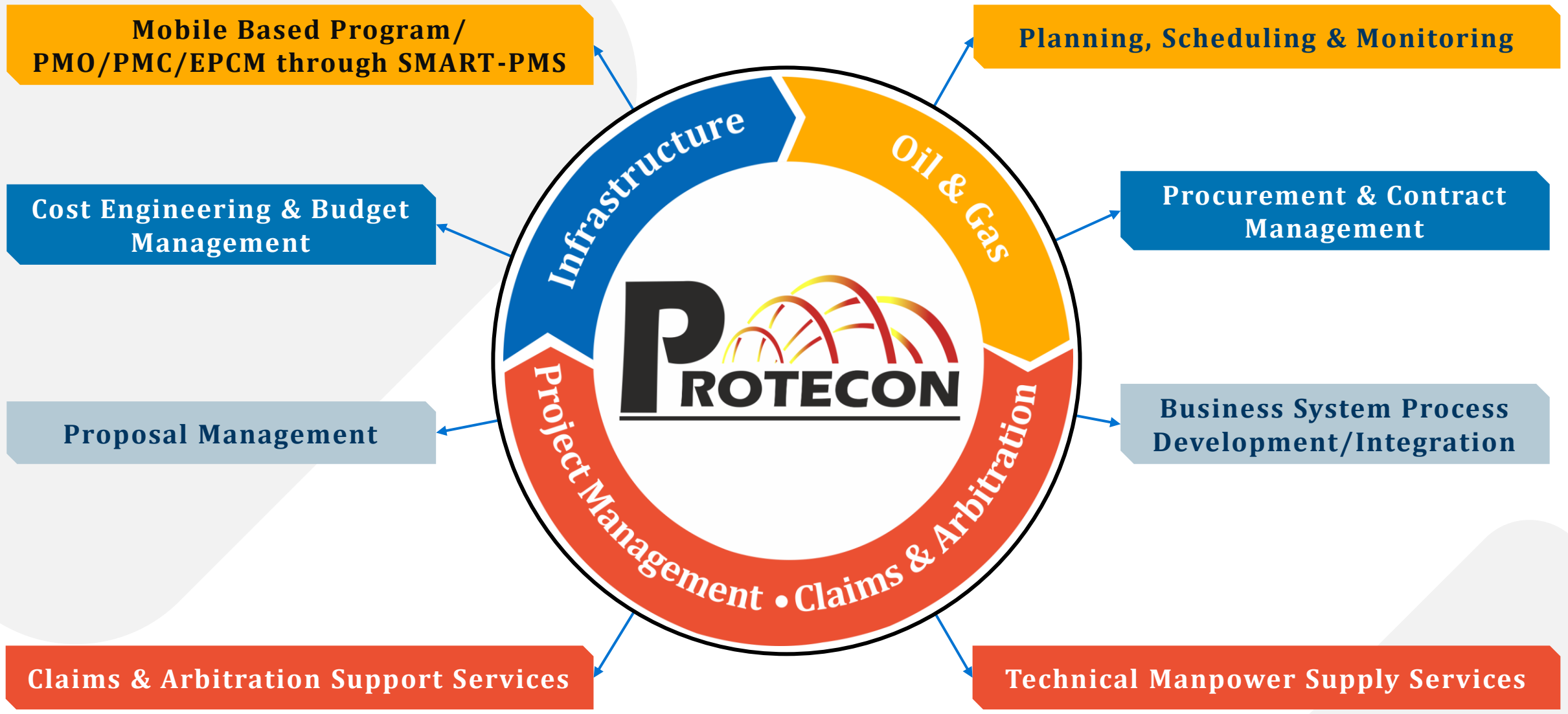
## Consultancy Services



## BTG Program (Training)



**Trained 227 young Engineers in the field of Project Management & Controls**



## Mobile Based Program/PMO/PMC/EPCM through SMART-PMS

- 100 % Digitization of Project Data for Complete Document Management System
- 100% automated actual progress updation of Engineering & Procurement
- Graphical & Tabular Statistical Analysis (Plan Vs Actual) Reports
- Single Window Management Decision Making Tool
- Engineering, Procurement and Construction Management / Integration
- With its inherent Roll-On Roll-Off concept through Multi Located Teams.

## Cost Engineering & Budget Management

- Project Cost Management Plan
- Commitment Recording & Monitoring System
- Cost Forecasts & Trend analysis
- Earned Value Management (EVM) Reports
- Cost analysis for each cost saving / overruns (Post Order Stage)
- Advisories on possible venues of Cost Savings
- Change Impact analysis – Forex Changes, Tax structures, Scope Changes
- Accurate Cash Flow Quarterly Reports for fund management

## Proposal Management

- Qualitative Risk Assessment for Bid-No Bid Decision
- Attending pre-bid meetings and raising queries
- Pre-bid engineering for quantification of scope
- Commercial impact of tender specifications & conditions
- Assistance in preparation of technical bid
- Assistance in preparing the replies against Technical & Commercial queries.

## Claims & Arbitration Support Services

- Cost Impact Analysis for Changes / Extra Work / Idling
- Time Impact Analysis for Execution Delays
- Claims Documentation
- Support during Review & Settlement of Disputes
- Support during Dispute Resolution Board (DRB) proceedings
- Expert Witness Support during Arbitration proceedings

## Planning, Scheduling & Monitoring

- To assist in Defining Project Controls Requirements for Effective Project Monitoring.
- To appraise about project status through Brief & Concise Progress Reports & Dashboards.
- To identify Areas of Concern & advise Mitigation Plan to arrest delays.
- To protect client's interest by demonstrating Potential Risks associated with schedule overruns.
- To highlight the Inter / Intra Dependencies with various projects & executing agencies.
- To collate & integrate the reported information from various executing agencies.

## Procurement & Contract Management

- Vendor Development & Registration
- Preparing Enquiry document / Tenders
- Evaluating Bids
- Techno-commercial Negotiations
- Preparing LOI/LOA
- Preparing PO / Contract Documents
- Preparing Contractual Responses
- Implementing Change Management

## Business System Process Development/Integration

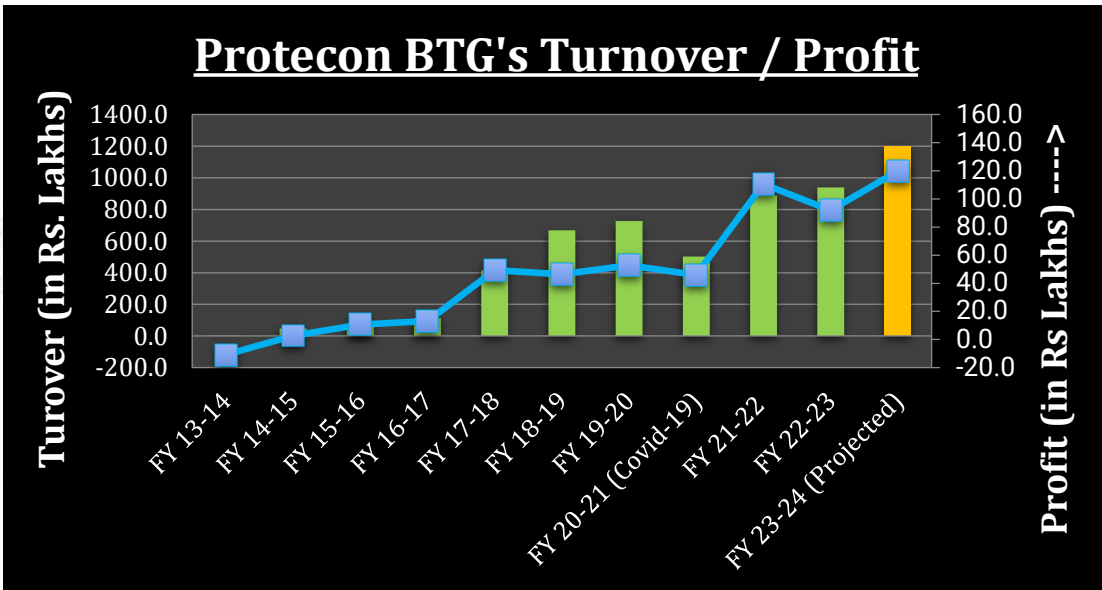
Development and Integration of all project management processes as per client's requirements such as engineering /procurement/construction/planning scheduling & monitoring/budgeting/invoicing/QA-QC/HSE/Risk/Contract management etc.

## Technical Manpower Supply Services

- Technology Selection
- Pre-feasibility / Feasibility Studies
- Front –End Engineering Design (FEED)
- Engineering, Procurement & Construction Management (EPCM) by Owner / Client Organizations
- Engineering, Procurement & Construction Management (EPCM) by Engineering Consultant

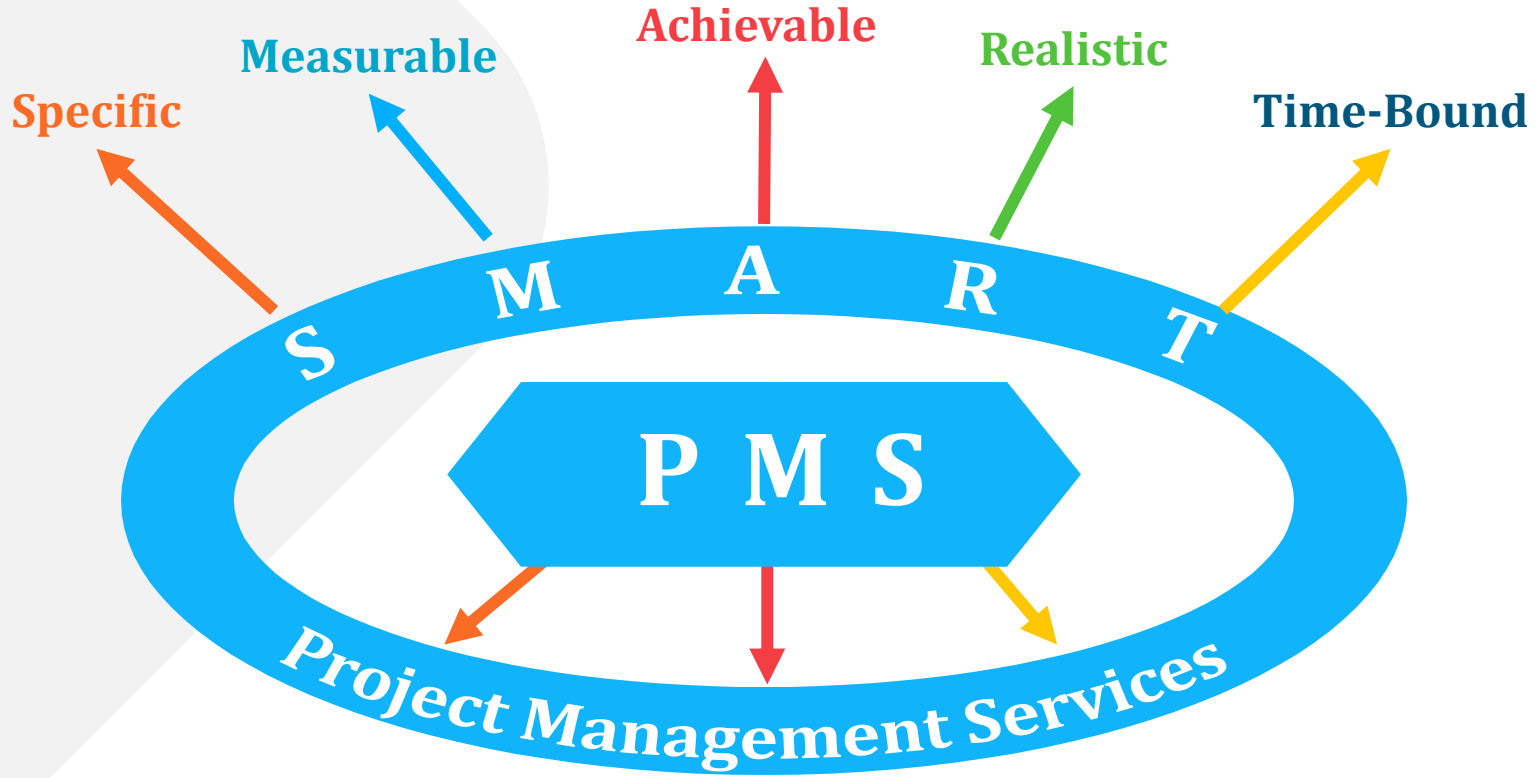


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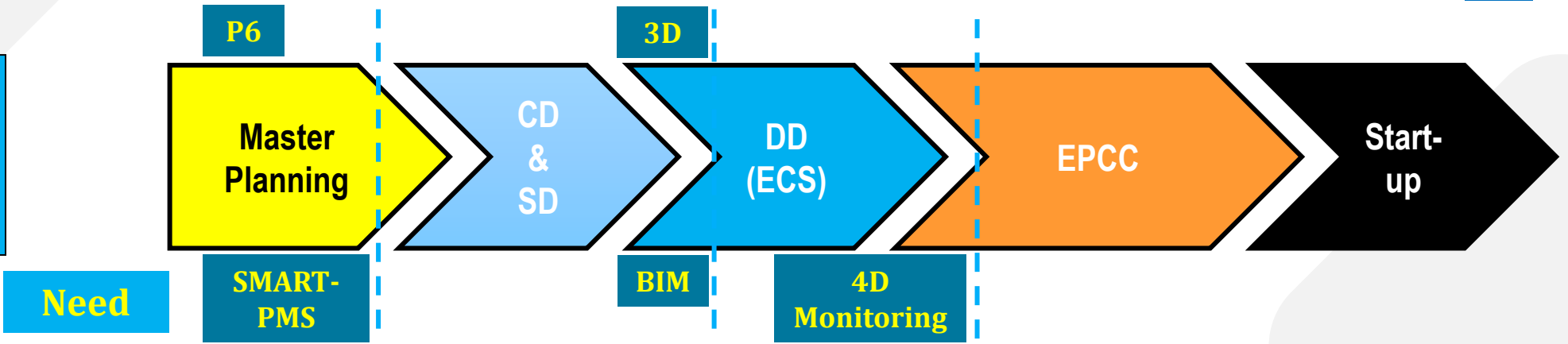


Designed by Protecon

Powered by WRENCH

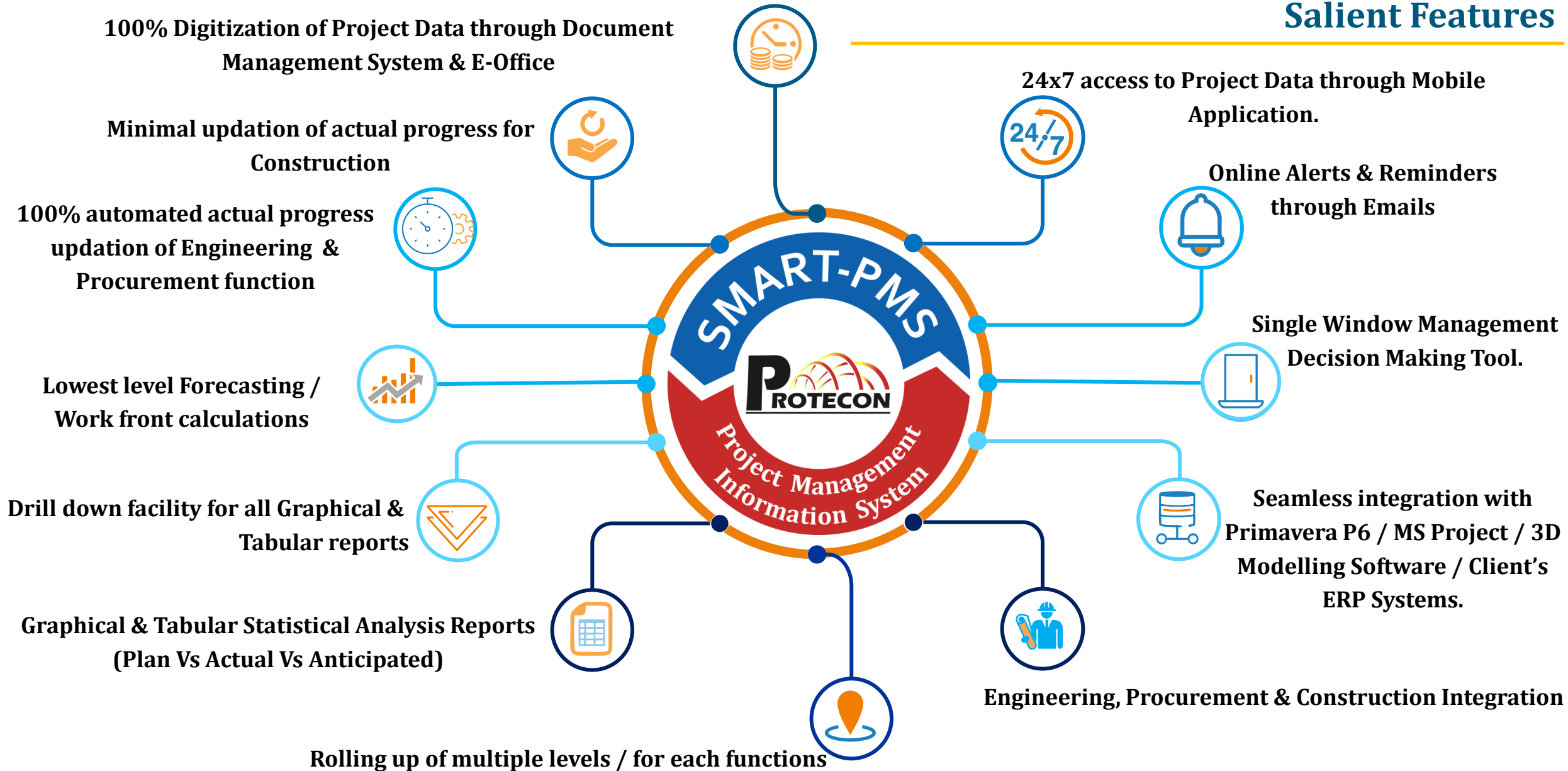


**Typical Project Life Cycle**



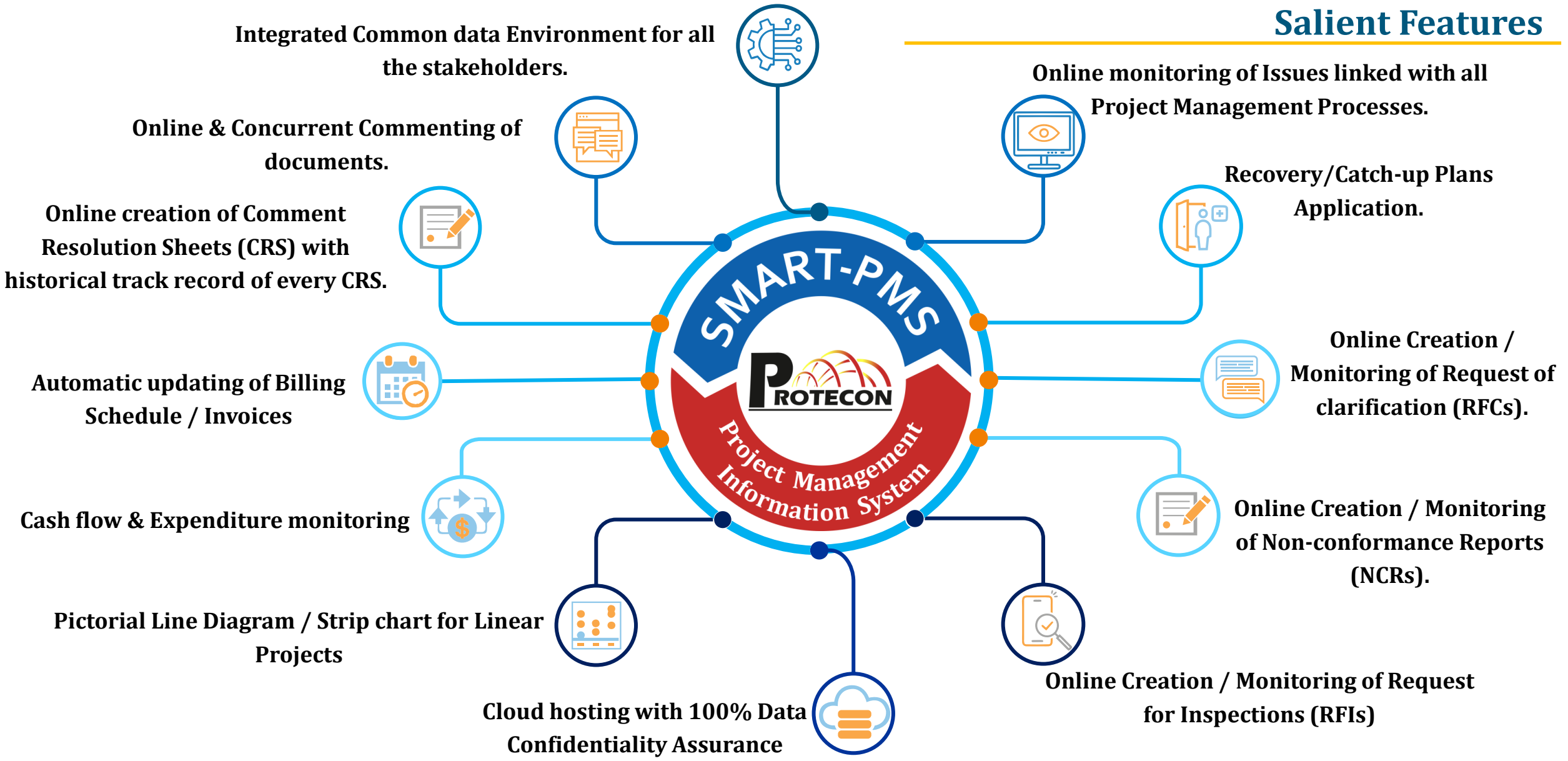
# SMART-PMS : Integrated Project Management Information System

## Salient Features



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## Salient Features





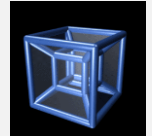
## Additional Features



**Integrated Timesheet Management for effective Cost/Resource Monitoring**



**Live Streaming of Construction Work through CCTV.**



**4-D Planning, Scheduling & Monitoring.**



**Integration with GIS Software & Satellite Imaging System.**



**Online Equipment Tracking through RFID for effective Cost/Resource Monitoring.**



**Integration with Drone Monitoring System.**



**Online Monitoring / Witnessing of Inspection Tests / Factory Acceptance Tests .**

## Input Requirements

### TIME/SCHEDULE

Integrated Project schedule  
Timeline, Key Milestones, Delay,  
Pending Approval

### PROGRESS

Package wise progress,  
Deliverable wise progress,  
Construction quantity wise  
progress

### COST/BUDGET

Budgets & Commitments, PO,  
Invoice certified, Payments &  
Expenditure

### ENGINEERING

Document Controls Register

### PROCUREMENT

Procurement Plan



### RISK / ISSUE

Risk Register

### INTERFACE / RFCs

PMC Interface/ RFC Register

### HSE / QUALITY

HSE Register, LTIs, Audits,  
Trainings, NCRs, RFIs

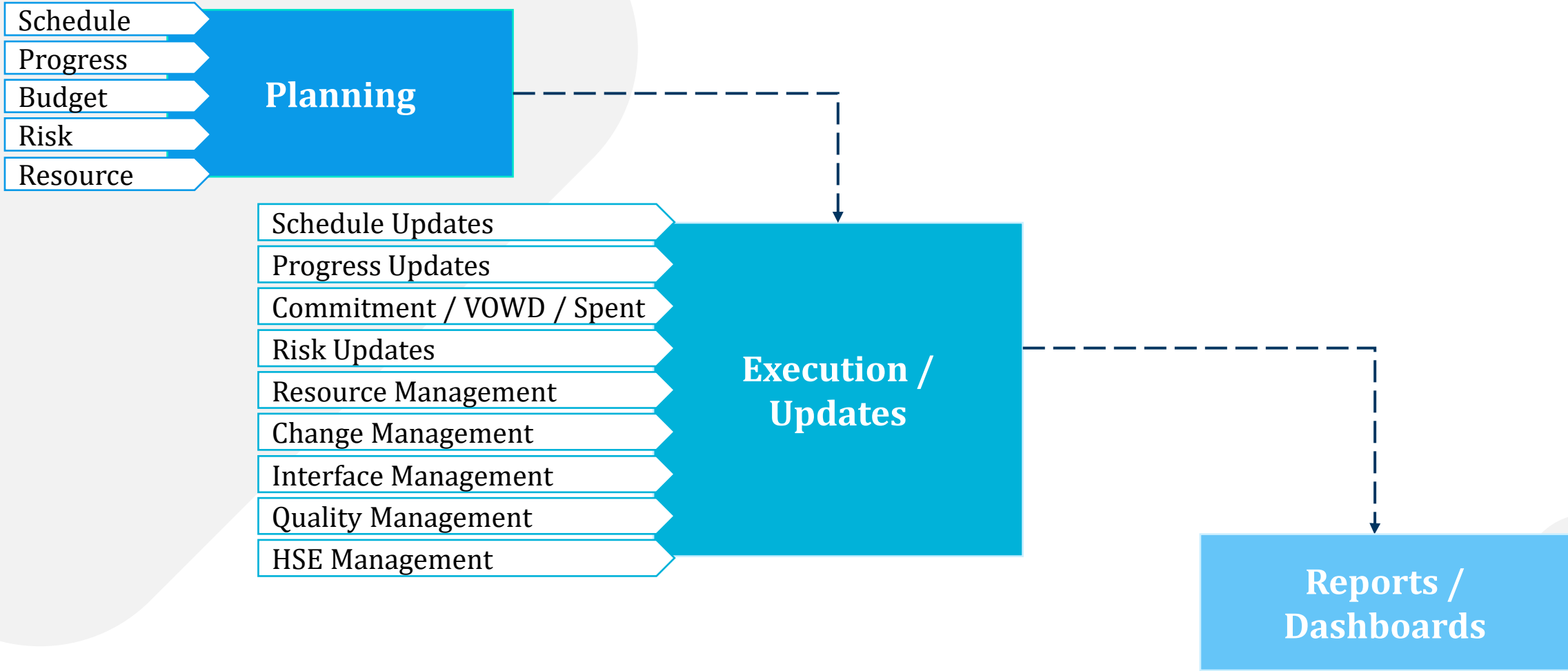
### RESOURCES

Manpower & Machinery

### CONSTRUCTION

Construction Plan  
Commodity Tracking

## Execution



## Outputs

### Dashboards

- Portfolio Level
- Project High Level Information
- Project Detailed Level Information
- Package Level Information

### Reports

#### Schedule

- Key Milestone Analysis
- Timeline

#### Progress

- Progress S-curve
  - Overall / Package wise
- Progress Tables
  - Overall / Packages
- Planned Vs Actual
- Variance Analysis

#### Cost

- Cost Control
- Budget Vs Commitment
- Package wise Cashflow/ VOWD

#### Risk

- Risk Register
- Heat Map

#### Resource

- Resource Requirements
- Resource utilization

#### Interface

- Interface / RFC Status
- Contractor wise interface status

#### Quality

- Overall Status (RFIs/NCRs)
- Contractor wise Status

#### HSE

- HSE Statistics
- HSE Monthly report
- HSE Tabular report

#### Engineering

- Engineering Status
- Document Control Register

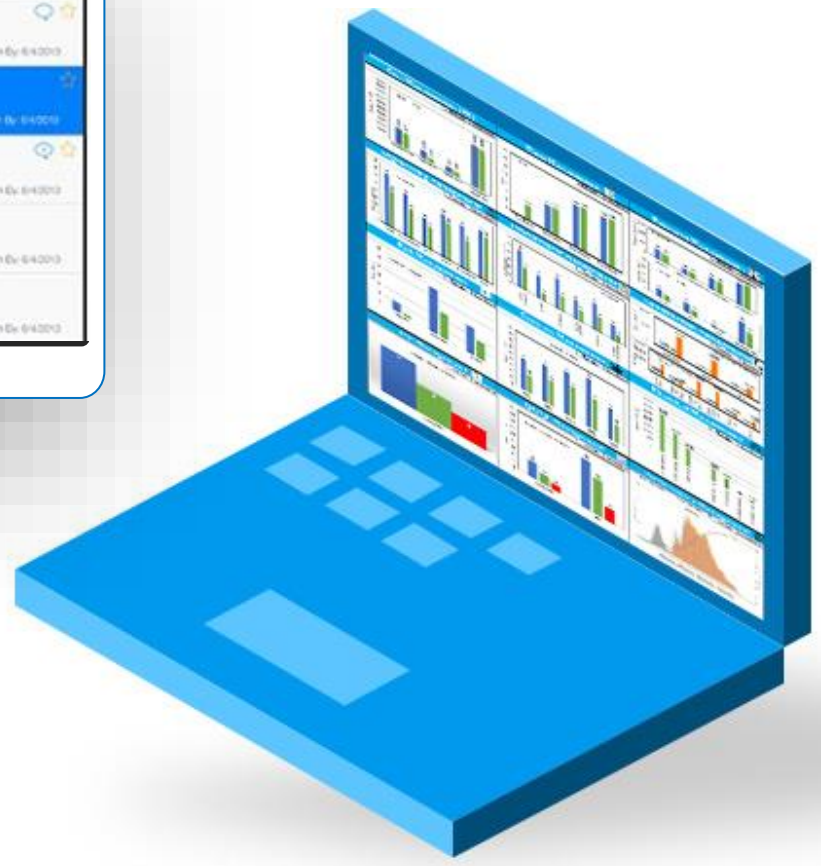
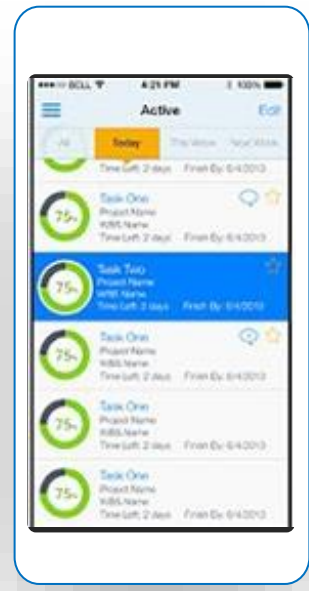
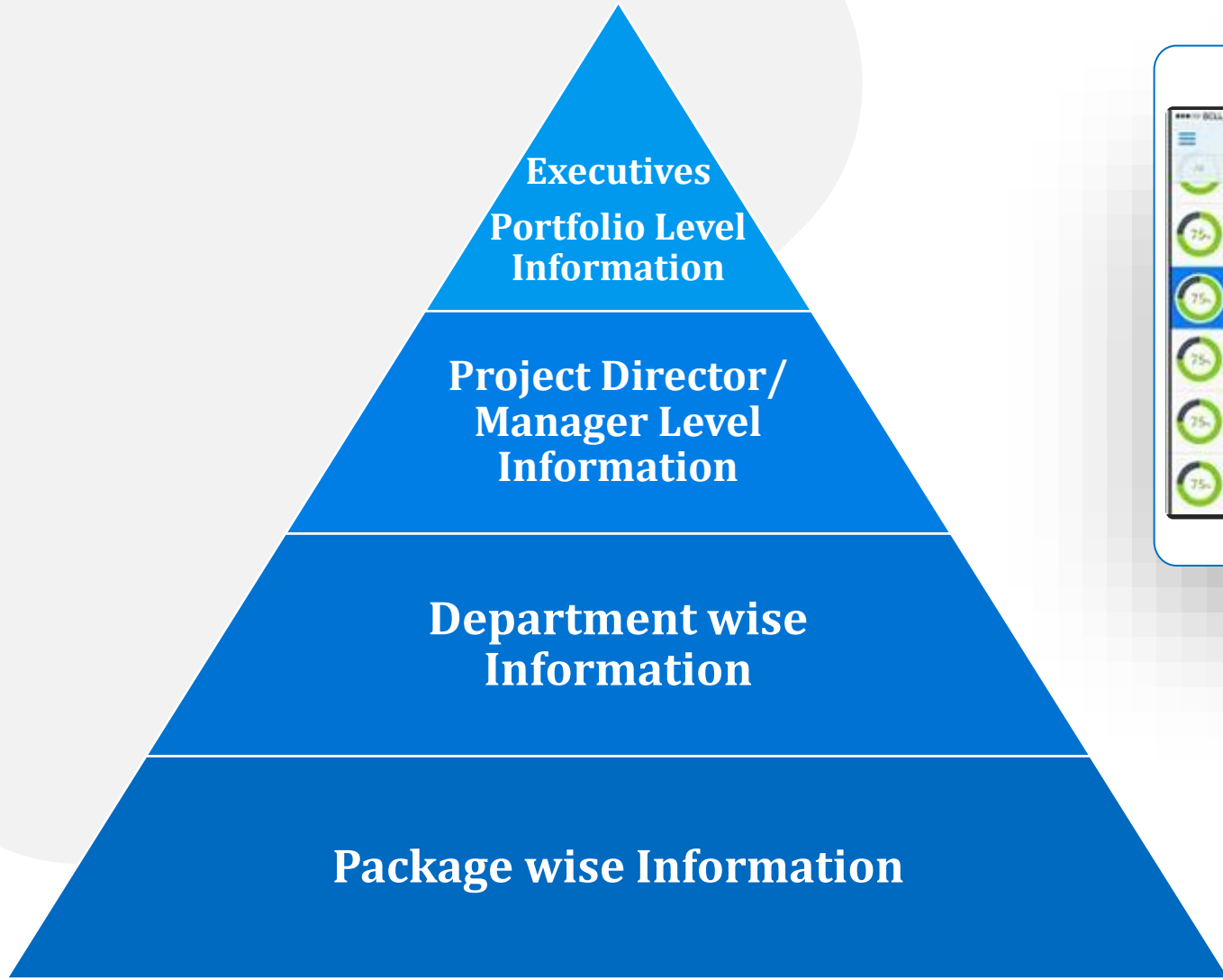
#### Procurement

- Procurement Tracking
- Procurement Status table

#### Construction

- Commodity Tracking
- Quantum Analysis
- Variance Analysis

## Avoid !!! Information Overload - Adapt Multi-layered Dashboards



Navigation menu: ML1, ML2, **ML3**, ML4, PPC, DT, RT, IP1, IP2, IP3, ST1, ST2, ST-3, ST-4, ST-5, HDD1, HDD2, HDD3, HDD4

**Package Contractor Name**

**Timeline**

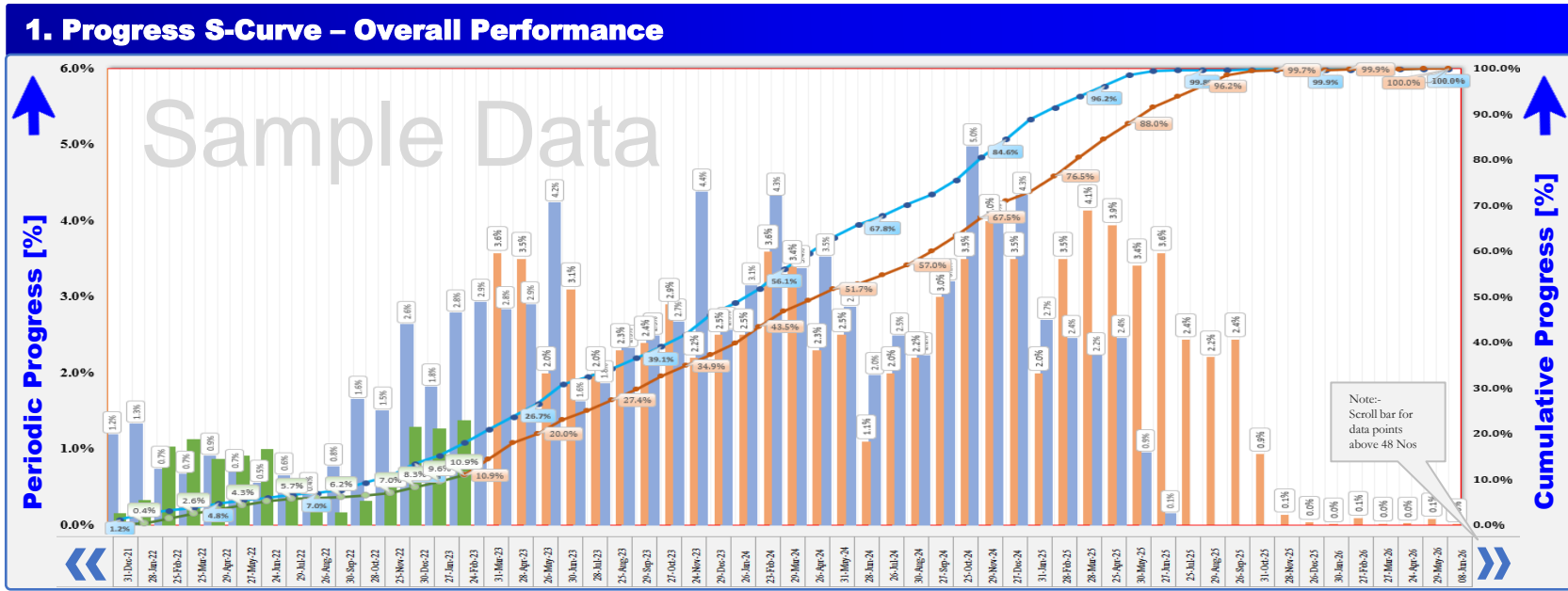
- Week/Month
- Month/Year
- Quarter/Year

**Base Schedule**

- Original Baseline
- Revised Baseline
- Recovery Plan

**Modules**

- Performance Management
- Schedule Management
- Cost Management
- Contract Management
- QAQC Management
- HSSE Management
- Resource Management
- Risk/Issue Management



### 2. Progress Trend Analysis

Period	25-Nov-22	30-Dec-22	27-Jan-23	24-Feb-23	31-Mar-23	28-Apr-23	26-May-23	30-Jun-23	28-Jul-23	25-Aug-23	29-Sep-23	27-Oct-23	24-Nov-23
	M-6	M-5	M-4	M-3	M-2	M-1	M-0	M+1	M+2	M+3	M+4	M+5	M+6
<b>Plan</b>	0.4%	0.7%	1.7%	1.5%	2.6%	1.8%	2.8%	2.9%	2.8%	2.9%	4.2%	1.6%	1.8%
<b>Actual/Forecast</b>	0.6%	0.4%	0.8%	0.7%	0.4%	1.2%	1.4%	3.6%	3.5%	2.0%	3.1%	2.0%	2.3%
<b>Variance</b>	0.2%	-0.3%	-0.9%	-0.8%	-2.3%	-0.6%	-1.4%						

### 3. Overall Progress Status

Item	Wtg %	Up-to last month (%)			For this Month (%)			Cumm. up to this month (%)		
		Plan	Act	Var.	Plan	Act	Var.	Plan	Act	Var.
<b>General</b> (Click here)	3.1%	94.4%	78.5%	-16.0%	0.1%	0.0%	-0.1%	94.6%	78.5%	-16.1%
<b>Engineering</b> (Click here)	0.4%	68.8%	65.5%	-3.3%	2.5%	2.4%	-0.1%	71.3%	67.9%	-3.4%
<b>Procurement</b> (Click here)	2.0%	48.3%	11.6%	-36.7%	15.1%	0.1%	-15.0%	63.3%	11.7%	-51.7%
<b>Construction</b> (Click here)	94.3%	11.8%	7.1%	-4.7%	2.6%	1.4%	-1.2%	14.4%	8.5%	-5.9%
<b>Closeout</b> (Click here)	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Overall Ppogress</b>	100.0%	15.3%	9.6%	-5.7%	2.8%	1.4%	-1.4%	18.0%	10.9%	-7.1%

Status as of: **16-JUN-2023**

Sch. Start	Sch. Finish	Rev. Finish
Act. Start	Act. Finish	Ant. Finish
Cum. Plan	Cum. Act.	Variance
Sch. Dur.	Ant. Dur.	Rem. Dur.
Awarded ₹	Invoiced ₹	Paid ₹

### Legends

- Periodic Plan
- Periodic Actual
- Periodic Forecast
- Cumulative Plan
- Cumulative Actual
- Cumulative Forecast

**Package Contractor Name**

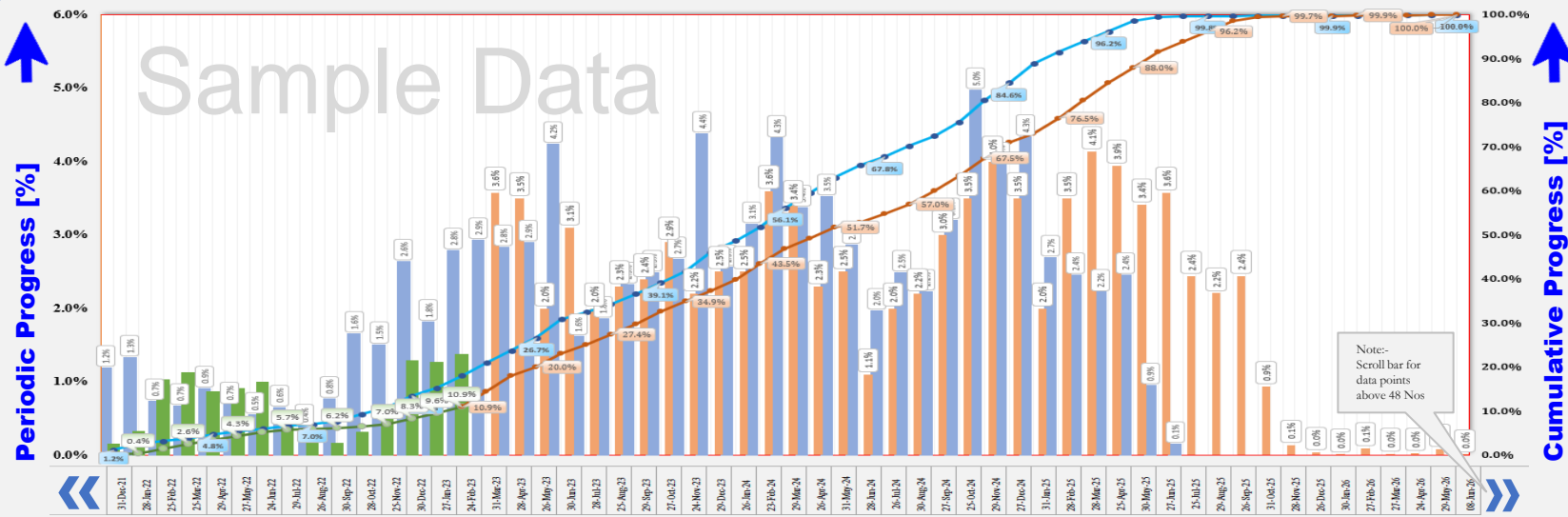
**Facility**

- Mainline Works
- OFC Works
- TCP Works
- HDD 1 (Road)
- HDD 2 (Road)
- HDD 3 (Utilities)
- Open Cut Crossings
- Hydrotesting
- Tie-In Works
- Commissioning Works

**Modules**

- Performance Management
- Schedule Management
- Cost Management
- Contract Management
- QAQC Management
- HSSE Management
- Resource Management
- Risk/Issue Management

**1. Progress S-Curve – Engineering**



**2. Deliverable Submission Status**

Facility	Scope Qty.	Plan Qty.	Actual Qty.	Variance Qty.
<b>Mainline</b>				
ML1	450	383	338	-45
ML2	425	361	319	-43
ML3	475	404	356	-48
ML4	450	383	338	-45
<b>Terminal</b>				
DT	650	553	488	-65
RT	650	553	488	-65
<b>Stations</b>				
IP1	325	276	244	-33
IP2	320	272	240	-32
IP3	350	298	263	-35
ST1	150	128	113	-15
ST2	125	106	94	-13
ST3	150	128	113	-15
<b>Total</b>	<b>4,520</b>	<b>3,842</b>	<b>3,390</b>	<b>-452</b>

**3. Deliverable Approval Status**

Facility	Under Review	IFR	IFA	IFC
<b>Mainline</b>				
ML1	122	338	270	216
ML2	115	319	255	204
ML3	128	356	285	228
ML4	122	338	270	216
<b>Terminal</b>				
DT	176	488	390	312
RT	176	488	390	312
<b>Stations</b>				
IP1	88	244	195	156
IP2	86	240	192	154
IP3	95	263	210	168
ST1	41	113	90	72
ST2	34	94	75	60
ST3	41	113	90	72
<b>Total</b>	<b>1,220</b>	<b>3,390</b>	<b>2,712</b>	<b>2,170</b>

Status as of: **16-JUN-2023**

Cum. Plan	Cum. Act.	Variance
87.6%	75.8%	-11.8%

Sch. Dur.	Ant. Dur.	Variance
360 days	820 days	-460 days

Submittals Pending with Engineer for Review <=21 Days	Submittals Pending with Engineer for Review > 21 Days	Total Submittals Pending with Engineer
386 No	162 No	548 No

**Legends**

- Periodic Plan
- Periodic Actual
- Periodic Forecast
- Cumulative Plan
- Cumulative Actual
- Cumulative Forecast

**Package Contractor Name**

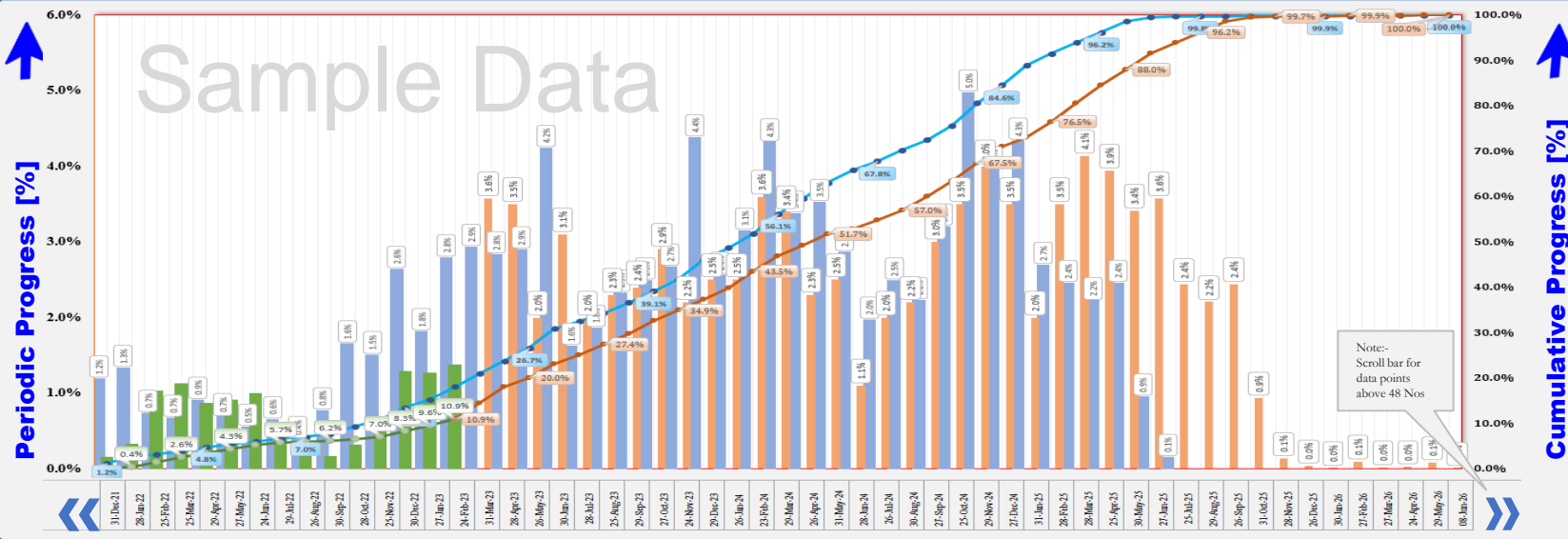
**Facility**

- Mainline Works
- OFC Works
- TCP Works
- HDD 1 (Road)
- HDD 2 (Road)
- HDD 3 (Utilities)
- Open Cut Crossings
- Hydrotesting
- Tie-In Works
- Commissioning Works

**Modules**

- Performance Management
- Schedule Management
- Cost Management
- Contract Management
- QAQC Management
- HSSE Management
- Resource Management
- Risk/Issue Management

**1. Progress S-Curve – Procurement**



**2. Pre-Ordering Performance**

FIM ML Material/Bulk Supply OFC & TCP E & I Bulk Material

SN	ML Material/Bulk Supply Items	UoM	Scope Qty	Order (Sch)	Order (Act)	Variance Qty
1	6010 Electrode	Kg	1800	900	950	50
2	8010 Electrode	Kg	1500	750	650	-100
3	5010 Electrode	Kg	1050	750	775	25
4	Tungsten Electrode	Kg	150	75	30	-45
5	Filler Rod	Kg	550	440	475	35
6	Coating Sleeve	Nos.	35000	17000	12000	-5000
7	Copper Slag	Kg	8000	3500	4000	500
8	RT Film	Nos.	35000	17000	12000	-5000

**3. Post-Ordering Performance**

FIM ML Material/Bulk Supply OFC & TCP E & I Bulk Material

SN	ML Material/Bulk Supply Items	UoM	Ordered	Delivery (Sch)	Delivery (Act)	Variance Qty
1	6010 Electrode	Kg	950	760	532	-228
2	8010 Electrode	Kg	650	520	364	-156
3	5010 Electrode	Kg	775	620	434	-186
4	Tungsten Electrode	Kg	30	24	16.8	-7.2
5	Filler Rod	Kg	475	380	266	-114
6	Coating Sleeve	Nos.	12000	9600	6720	-2880
7	Copper Slag	Kg	4000	3200	2240	-960
8	RT Film	Nos.	12000	9600	6720	-2880

Status as of: **16-JUN-2023**

Cum. Plan	Cum. Act.	Variance
15.3%	12.4%	-2.9%
Sch. Dur.	Ant. Dur.	Variance
360 days	820 days	-460 days

**FIM Pipe Status**

Total FIM Pipe (Km)	Actual Delivered (Km)	Balance to Deliver (Km)
137.1	90.1	47.0

**FIM Valve Status**

Total Valves (Nos.)	Actual Delivered (Nos)	Balance to Deliver (Nos)
35 Nos	12 Nos	23 Nos

**Legends**

- Periodic Plan
- Periodic Actual
- Periodic Forecast
- Cumulative Plan
- Cumulative Actual
- Cumulative Forecast



- ML1
- ML2
- ML3**
- ML4
- PPC
- DT
- RT
- IP1
- IP2
- IP3
- ST1
- ST2
- ST-3
- ST-4
- ST-5
- HDD1
- HDD2
- HDD3
- HDD4

**Package Contractor Name**

**Facility**

Mainline Works

OFC Works

TCP Works

HDD 1 (Road)

HDD 2 (Road)

HDD 3 (Utilities)

Open Cut Crossings

Hydrotesting

Tie-In Works

Commissioning Works

**Modules**

Performance Management

Schedule Management

Cost Management

Contract Management

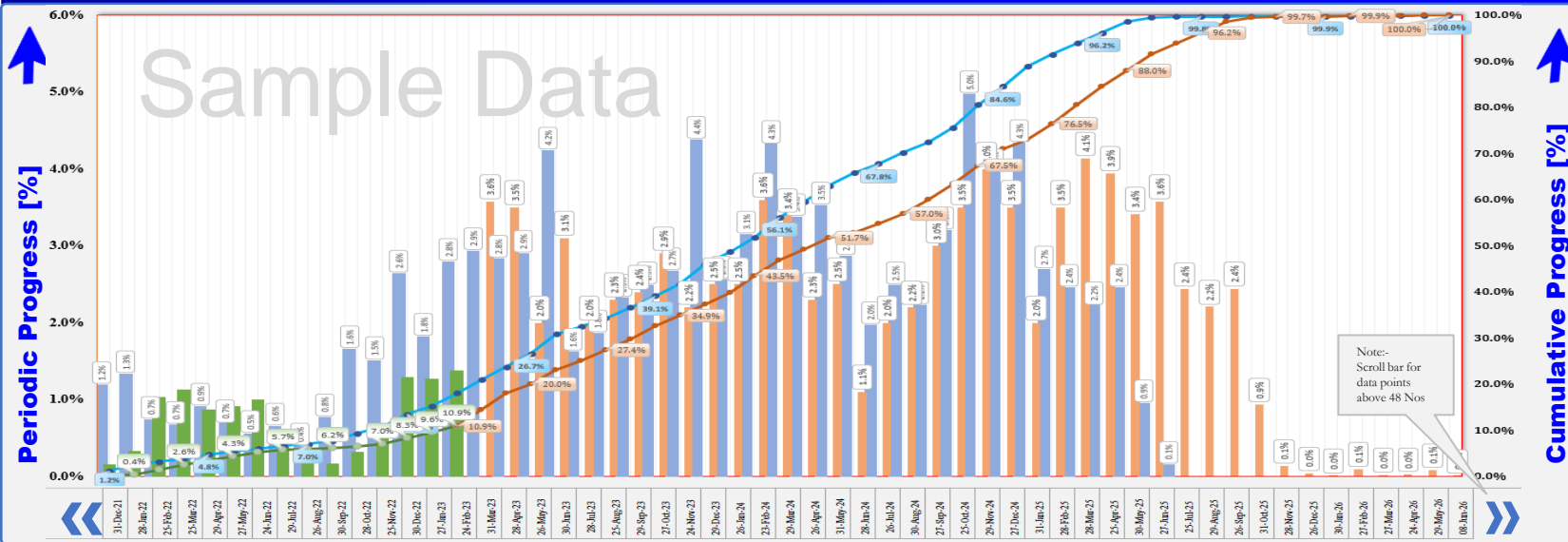
QAQC Management

HSSE Management

Resource Management

Risk/Issue Management

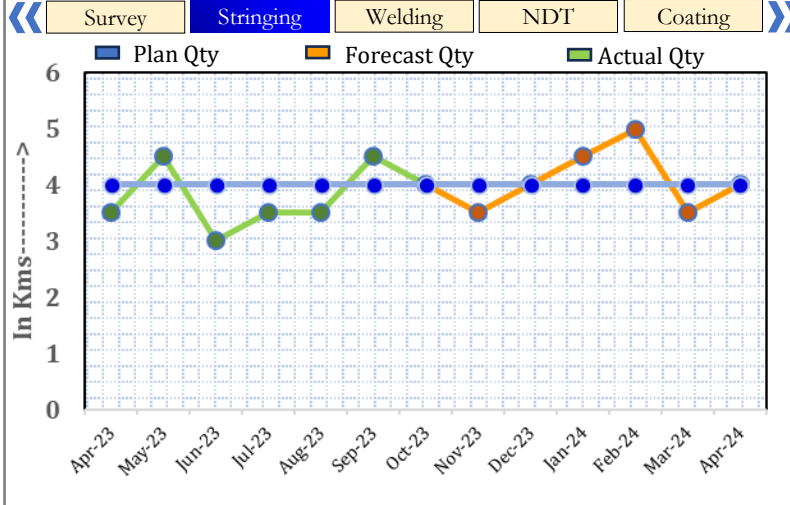
**1. Progress S-Curve – Construction**



**2. Progress Status**

Type	UoM	Scope Qty.	Planned Qty.	Actual Qty.	Variance Qty.
Survey Works	Km	137.1	58.5	43.9	14.6
Stringing	Km	137.1	45.8	29.8	16.0
ML Welding	Nos.	11425	3408	2215	1193
NDT	Nos.	11425	3208	2085	1123
Coating	Nos.	11425	2950	1918	1033
Trenching	Km	137.1	33.1	21.5	11.6
Lowering	Km	137.1	32.5	20.1	12.4
Backfilling	Km	137.1	32.5	19.1	13.4

**3. Productivity Status**



Status as of: **16-JUN-2023**

Cum. Plan	Cum. Act.	Variance
15.3%	12.4%	-2.9%
Sch. Dur.	Ant. Dur.	Variance
360 days	820 days	-460 days

**ROW Handover Status**

Total ROW [KM]	ROW Encumbrance-free	ROW Balance [KM]
137.100	112.100	25.000

**Site Hindrance Status**

Total Hindrance Identified [Numbers]	Hindrance Solved [Numbers]	Hindrance Balance [Number]
15	12	3

**Legends**

- Periodic Plan
- Periodic Actual
- Periodic Forecast
- Cumulative Plan
- Cumulative Actual
- Cumulative Forecast

Navigation bar with package types: ML1, ML2, **ML3**, ML4, PPC, DT, RT, IP1, IP2, IP3, ST1, ST2, ST-3, ST-4, ST-5, HDD1, HDD2, HDD3, HDD4

**Package Contractor Name**

**Timeline**

- Week/Month
- Month/Year
- Quarter/Year

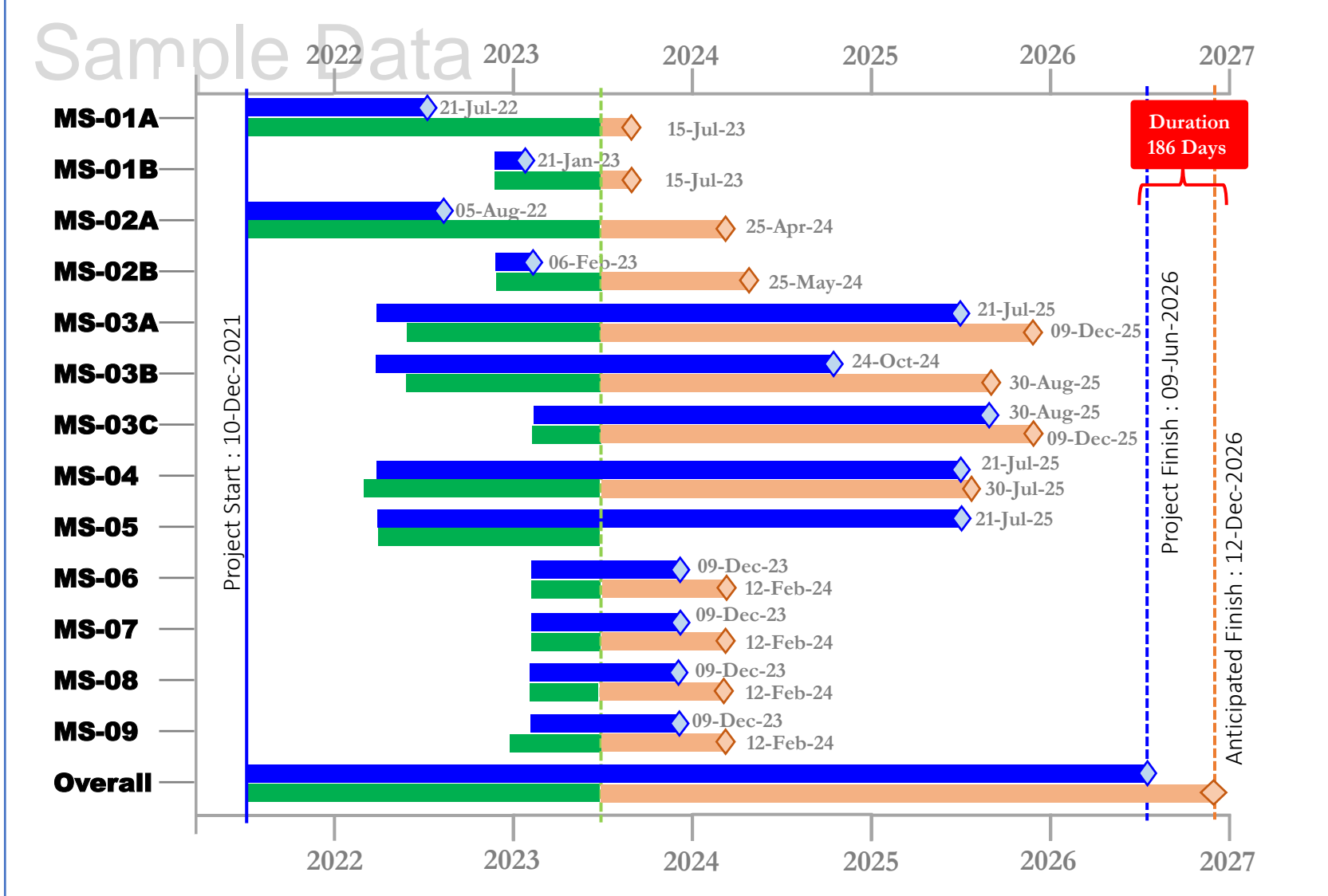
**Base Schedule**

- Original Baseline
- Revised Baseline
- Recovery Plan

**Modules**

- Performance Management
- Schedule Management**
- Cost Management
- Contract Management
- QA/QC Management
- HSSE Management
- Resource Management
- Risk/Issue Management

**1. Milestone Performance**



Status as of: **16-JUN-2023**

**Baseline Status**

Baseline Start Date	Baseline Finish Date	Baseline Duration (Days)
10-Dec-21	09-Jun-26	1643 d

**EOT Status**

Latest EOT Requested	Latest EOT Approved	Latest EOT Duration
20-Oct-27	15-Jun-27	372 d

**Schedule Analysis**

Total Milestones	Completed Milestones	Balance Milestones
9 No	2 No	7 No

Total Activities in CWP	Actualized Activities in updated CWP	Balance / In-Progress Activities
11449 No	1589 No	9870 No

Critical Activities in CWP	Critical Activities in updated CWP	Variations per updated CWP
1066 No	4929 No	+3863 No

Navigation bar with buttons for ML1, ML2, ML3, ML4, PPC, DT, RT, IP1, IP2, IP3, ST1, ST2, ST-3, ST-4, ST-5, HDD1, HDD2, HDD3, HDD4.

**Package Contractor Name**

**Timeline**

- Week/Month
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- Performance Management
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**1. Milestone Performance**

Milestone ID	Milestone Description	Baseline Finish	Actual / Anticipated Finish	Variance [Days]	Schedule Progress [%]	Actual Progress [%]	Variance [%]
		Schedule Analysis			Performance Analysis		
MS-01A	Completion of Geo-Technical Investigation of DT/RT/IP/ST	21-Jul-22	06-Jun-22	45	78%	60%	-18%
MS-01B	Completion of Geo-Technical Investigation of HDD	21-Jan-23	26-May-22	240	68%	51%	-17%
MS-02A	Completion of Mainline Welding in ML1	05-Aug-22	24-Jan-24	-537	58%	42%	-16%
MS-02B	Completion of Mainline Welding in ML2	06-Feb-23	16-Jun-23	-130	48%	26%	-22%
MA-03A	Completion of Mainline Welding in ML3	09-Jun-25	29-Jun-26	-385	38%	18%	-20%
MS-03B	Completion of Mainline Welding in ML4	11-Oct-24	30-Jun-25	-262	28%	9%	-19%
MS-03C	Pulling & Tie-in of HDD1, HDD2, HDD3 & HDD4	08-Sep-25	26-May-26	-260	18%	-2%	-20%
MS 04	Handover of DT to IOCL	09-Jun-25	12-Jun-26	-368	8%	10%	2%
MS 05	Handover of RT to IOCL	09-Jun-25	23-Apr-26	-318	7%	0%	1%
MS 06	Handover of ST1/ST2/ST3 to IOCL	08-Dec-23	04-Jan-24	-27	6%	0%	-6%
MS 07	Handover of IP1/IP2/IP3 to IOCL	08-Dec-23	04-Jan-24	-27	5%	0%	-5%
MS 08	Handover of ST4/ST5 to IOCL	22-Mar-25	12-Jun-25	-82	4%	0%	-4%
MS 09	Pre-Commissioning & Gas-in	08-Dec-23	04-Jan-24	-27	4%	0%	-4%
Overall	Project Close-Out & Taking-Over Certificate	08-Jun-26	12-Dec-26	-187	31%	26%	-5%

Status as of: **16-JUN-2023**

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**Package Contractor Name**

**Communication With**

- Engineer/PMC
- Sub-Contractor HDD
- Sub-Contractor OFC
- Sub-Contractor TCP
- Sub-Contractor Civil Works
- Sub-Contractor Commissioning
- Authority Approval

**Modules**

- Performance Management
- Schedule Management
- Cost Management
- Contract Management**
- QAQC Management
- HSSE Management
- Resource Management
- Risk/Issue Management

**1. Correspondence Status**



**2. Correspondence Performance**

Status	Engineering	Planning	Quality	Contract	Project	Construction	HSE	Finance
Received from Engineer	225	79	70	55	50	23	43	14
Replied by Contractor	112	61	57	26	46	23	30	10
<b>Total Pending with Contractor</b>	<b>113</b>	<b>18</b>	<b>13</b>	<b>29</b>	<b>4</b>	<b>0</b>	<b>13</b>	<b>4</b>
Pending with Contractor ≤ 14 days	50	9	8	15	2	0	8	0
Pending with Contractor > 14 days	63	9	5	14	2	0	5	4

Status as of: **16-JUN-2023**

**EOT Status**

Submitted	Approved	Under review/ finalization
3	0	3

**PVN Status**

Submitted	Approved	Under review/ finalization
15	2	13

**PCN Status**

Submitted	Approved	Under review/ finalization
6	1	5

**Legends**

- Received from Client
- Replied by Contractor
- Pending with Contractor ≤ 14 days
- Pending with Contractor > 14 days

**Package Contractor Name**

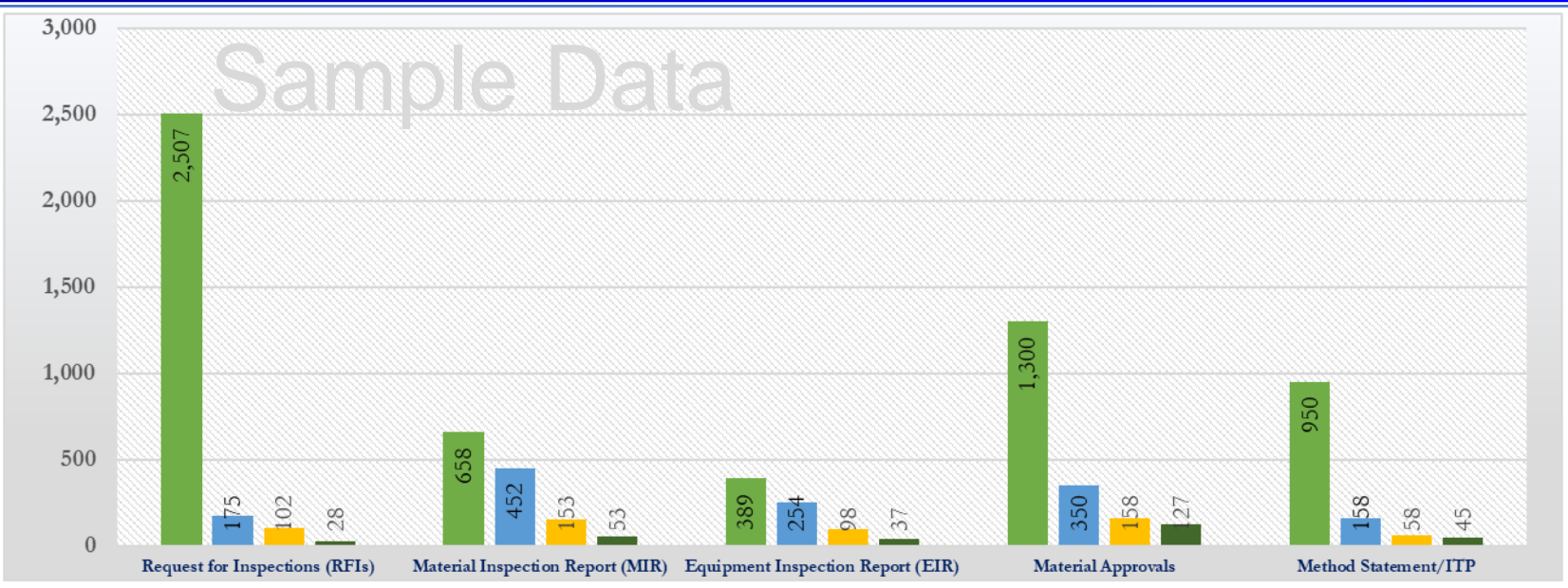
**Timeline**

- 2019
- 2020
- 2021
- 2022
- 2023
- 2024
- 2025

**Modules**

- Performance Management
- Schedule Management
- Cost Management
- Contract Management
- QA/QC Management**
- HSSE Management
- Resource Management
- Risk/Issue Management

**1. QA/QC Deliverables Status**



**1. QA/QC Performance**

Type	Submitted	Approved	Cancelled/Terminated	Under Review
<u>Request for Inspections (RFIs)</u>	2,507	175	102	28
<u>Material Inspection Report (MIR)</u>	658	452	153	53
<u>Equipment Inspection Report (EIR)</u>	389	254	98	37
<u>Material Approvals</u>	1,300	350	158	127
<u>Method Statement/ITP</u>	950	158	58	45

Status as of: **16-JUN-2023**

**Quality Manpower**

Cum. Plan	Cum. Act	Variance
3,448,050	3,394,875	-53,175

**Quality Analysis**

Total NCR	Open NCR	Closed NCR
158 No	24 No	134 No
Total SOR	Open SOR	Closed SOR
650 No	192 No	458 No
Total NCR Amount	Total Withheld Amount	Total Release Amount
54405648	22451303	7984455

**Legends**

- Submitted
- Approved
- Cancelled/Terminated
- Under Review

**Package Contractor Name**

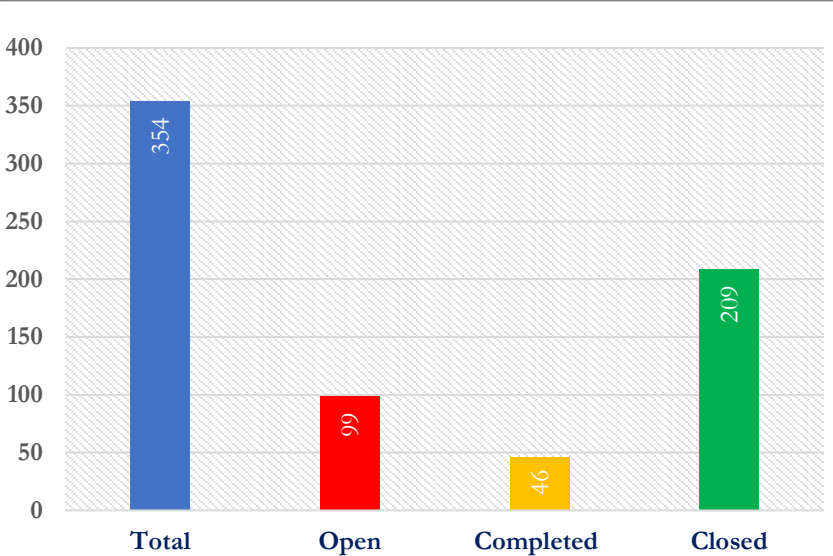
**Timeline**

- 2019
- 2020
- 2021
- 2022
- 2023
- 2024
- 2025

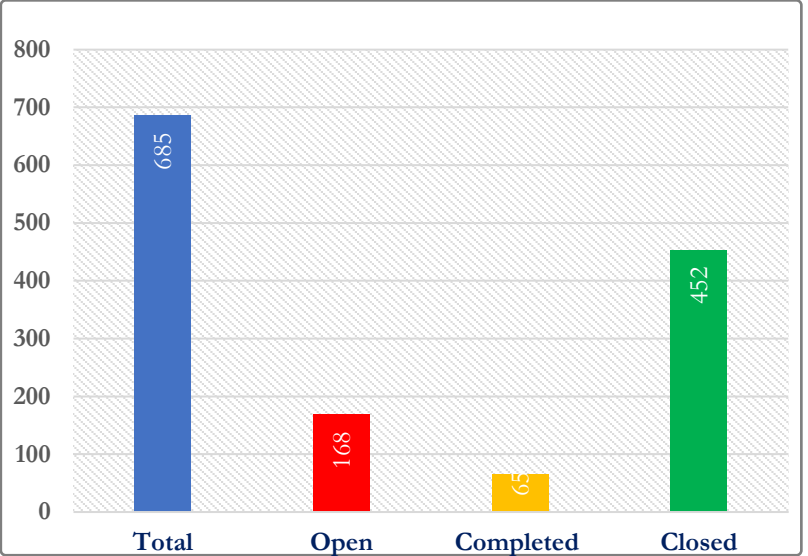
**Modules**

- Performance Management
- Schedule Management
- Cost Management
- Contract Management
- QA/QC Management
- HSSE Management**
- Resource Management
- Risk/Issue Management

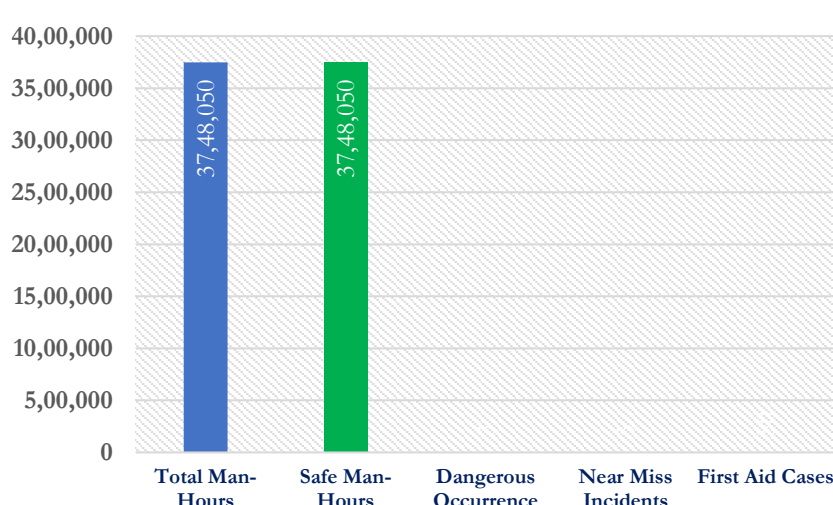
**1. NCR Safety**



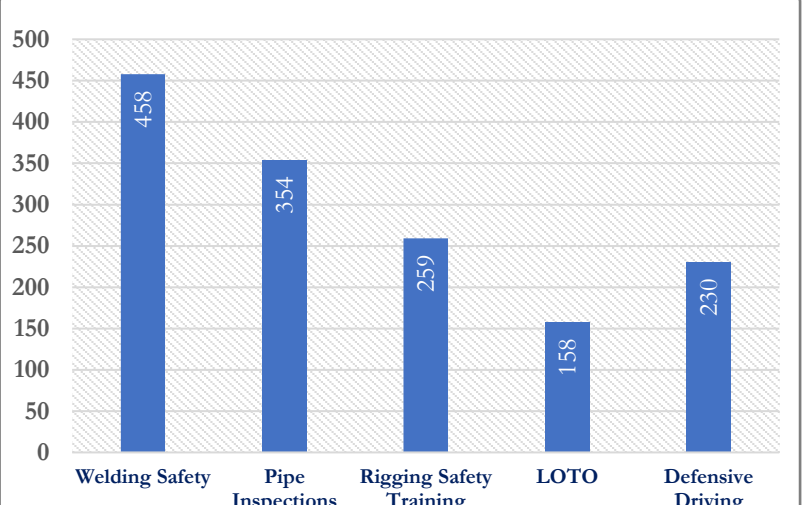
**2. SOR Safety**



**3. Safety Statistics**



**4. Training Statistics**



Status as of: **16-JUN-2023**

**Safety Manpower**

Plan Man-month	Actual Man-month	Variance
3330	2200	-1130

Plan Permit Holder	Actual Permit Holder	Variance
1150	857	-293

**Safety Analysis**

Total NCR Amount	Total Withheld Amount	Total Release Amount
65286778	26941564	9581347

Safety Induction	Safety Training	Other Training
9147	1059	4598

Mock Drill	Safety Walk	Fire Drill
18 No	14 No	22 No

**Package Contractor Name**

**Facility**

Mainline Works

OFC Works

TCP Works

HDD 1 (Road)

HDD 2 (Road)

HDD 3 (Utilities)

Open Cut Crossings

Hydrotesting

Tie-In Works

Commissioning Works

**Modules**

Performance Management

Schedule Management

Cost Management

Contract Management

QAQC Management

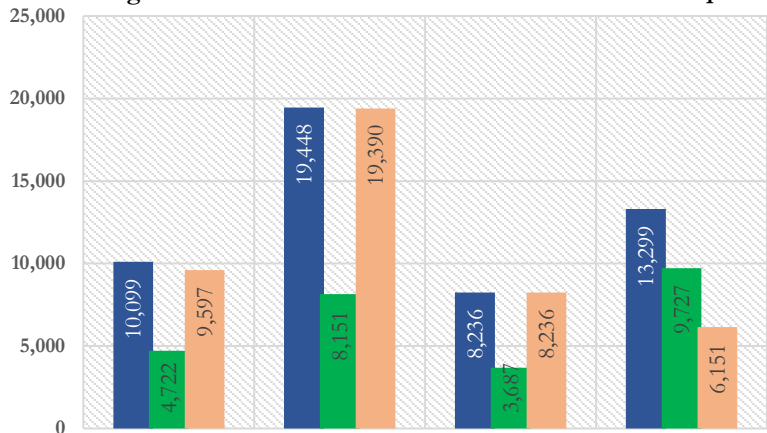
HSSE Management

**Resource Management**

Risk/Issue Management

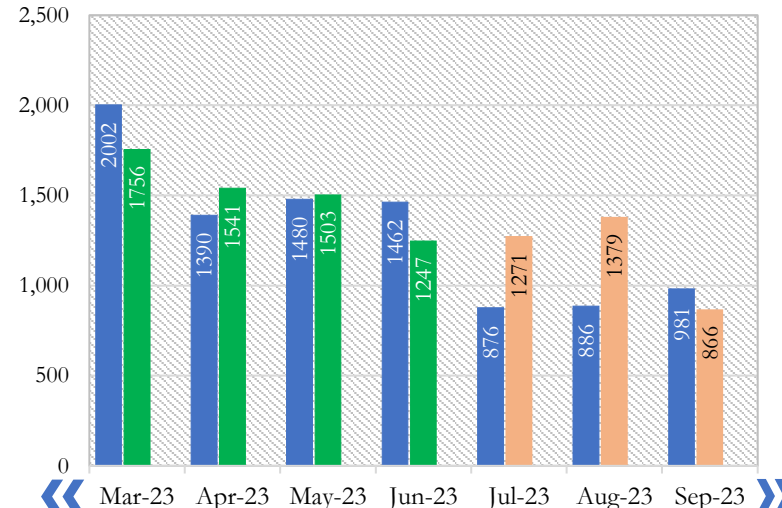
**1. Plant & Machinery Performance**

Budgeted EM Actual EM Forecast to Complete



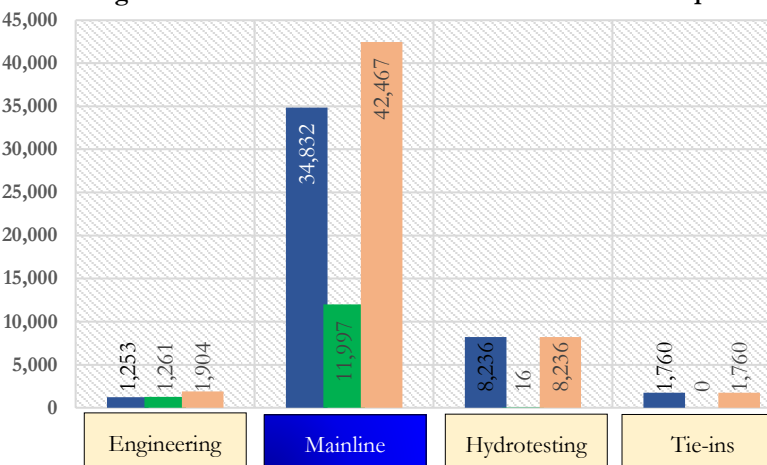
**2. Plant & Machinery Deployment Status**

Schedule MM Actual MM Forecast MM



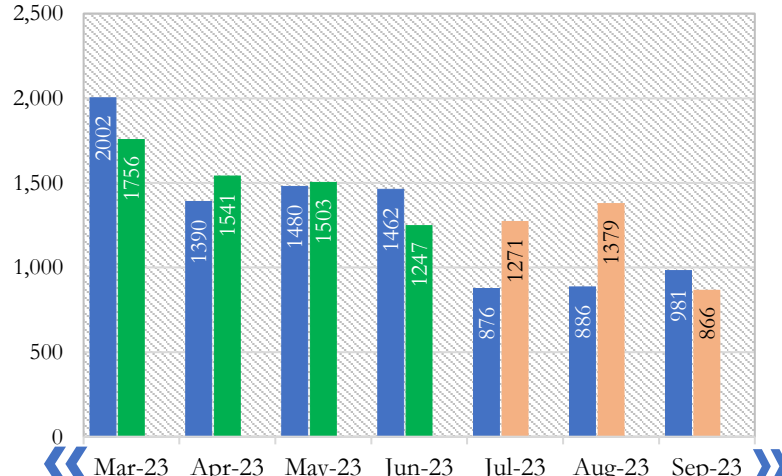
**3. Direct Manpower Performance**

Budgeted MM Actual MM Forecast to Complete



**4. Direct Manpower Deployment Status**

Schedule MM Actual MM Forecast MM



Status as of: **16-JUN-2023**

**Direct Manpower**

Cum. Plan	Cum. Act.	Variance
1462 MM	1247 MM	-215 MM

**Indirect Manpower**

Budgeted Man-month	Actual Man-month	Forecast to Complete
3330	1200	4080

**Key Personal**

Total Requirement	Actual Deployment	Balance Deployment
15 Nos	12 Nos	3 Nos

**Legends**

- Periodic Plan
- Periodic Actual
- Periodic Forecast
- EM Equipment Month
- MM Man Month

## Daily Progress Report Data

**SMART-PMS : Integrated Project Management Information System**

Welcome Manish Khilauria !!!
Daily Progress Updation Screen for Construction
Status As of 31-Jan-21

NHSRCL

- MAHSR → Grant
- DVHSR → Equity
- DAHSR → Loan

- C-1 → Engineering
- C-2 → Procurement
- C-3 → Sub-Contracting
- C-4 → Construction
- C-5 → Construction

Select Package:

Select Criteria: Chainage, Pier Nos., Spread /IWP No, Agency Name etc.

Sub Criteria: Lower Levels of above Criterias

Sub-activity Name	Budgeted Qty.	UOM	Cumulative Qty. (Till Yesterday)	Today's Qty.	Balance Qty.	Task Completed (Y/N)	Upload Photos	Issues / Hold Status
<b>Coming from CPR</b>								
			<b>Calculated using Daily Inputs from User</b>				Upload Photos	
				<b>Daily Inputs by User</b>			Upload Photos	
					<b>Required if, Total Actual Qty. is higher than Budgeted Qty.</b>		Upload Photos	
							Upload Photos	
							Upload Photos	
							Upload Photos	
							Upload Photos	
							Upload Photos	
							Upload Photos	
							Upload Photos	
							Upload Photos	
<b>Notes :</b>								
1)			Actual Start Date will be logged by the Software as soon as the user will put Actual Qty. on day-1					
2)			Actual Finish Date will be logged by the Software as soon as the User declares that Task is Completed.					

Meeting Calender

March 2021

Sun	Mon	Tue	Wed	Thr	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Today's Meeting Schedule

11:00 Am Board Meeting  
 12:30-3:30 Am Review Meeting

Task

Today's Task:   
 Pending Task:   
 Overdue Task:

My inbox

New Mails:   
 Pending Replies:

Project Features

Length: 508 km  
 Elevated: 460 kms  
 Bridges: 28 Steel  
 States Covered: Gujarat 239 kms, Dadra & Nagar Haveli 2 kms, Maharashtra 156 kms  
 Tunnels: 26 kms (including 7 kms undersea)  
 Ground: 13 kms  
 Speed: 320 kmph  
 Technology: Shinkansen Japan  
 Technical & Financial Support: Japan International Cooperation Agency  
 Project Funding: 80% JICA, 20 % Participating States  
 New Technology: Aerial LIDAR Survey & SBT Technology, 21 Km Long 13m Dia LG Tunnel by TBM  
 Eco Friendly: More than 74,000 plants have been transplanted  
 Training & Development: High Speed Railways Innovation Centre, Vadodara  
 Skill development of the local workforce: Supervisors, Welding Inspectors, Technicians, Crane Operators etc

Direct Manpower

Trade/Manpower	UOM	Actual Today
Mason Concrete	Nos	102
Carpenter Shuttring	Nos	198
Steel Fixers	Nos	204
Welders (Flash Butt)	Nos	89
Strl Fitter	Nos	84
Foreman	Nos	81

Direct Plant/Machinery

Plant/Machinery	UOM	Actual Today
Crusher 200TPH	Nos	4
Soil Inv. Rig	Nos	27
Piling Rig	Nos	13
Crawler Crane60mt	Nos	3
Batching Plant CP-60	Nos	5
Batching Plant-120	Nos	0
Transit Mixer	Nos	13
Excavator	Nos	15
Dumper	Nos	32
Launching gantry for SBS	Nos	2
Launching gantry for full sp	Nos	3
Tower Crane	Nos	1

Project Management Process Groups

Cost Management, Time Management, Resource Management, Engineering Management, Procurement Management, Risk Management, Financial Management, Contract Management, QA/QC Management, HSE Management, Construction Management, Performance Management, Issue Management



## PMS Output : Milestone Status Report

Client's Logo		Project : Mumbai-Ahmedabad High Speed Rail Package : C4 Milestone Status Report									Contractor's Logo	
										<b>Status As of :</b>		
SL No.	Milestone No.	Brief Milestone Description	Project Progress Weight	% Progress			Finish Dates				Ant. Delays	
				E. Sch. %	L. Sch. %	Act. %	E. Finish Date	L. Finish Date	Act. Finish Date	Ant. Finish Date		

## PMS Output : P6 Integration Report

Client's Logo		Project : Mumbai-Ahmedabad High Speed Rail Package : C4 P6 Integration Report						Contractor's Logo			
			A	B	C	D	Status Date:-				
S.NO	P6 Activity ID	Activity Description	Total Wt.	E. Sch Wt. (Earned)	L. Sch Wt. (Earned)	Actual Wt. (Earned)	Actual Start Date	Actual Finish Date	Forecast Start Date	Forecast Complete Date	Actual % Progress (D/A)
							← Dates going back to P6 →				
			$\Sigma A$	$\Sigma B$	$\Sigma C$	$\Sigma D$	Min	Max	Min	Max	

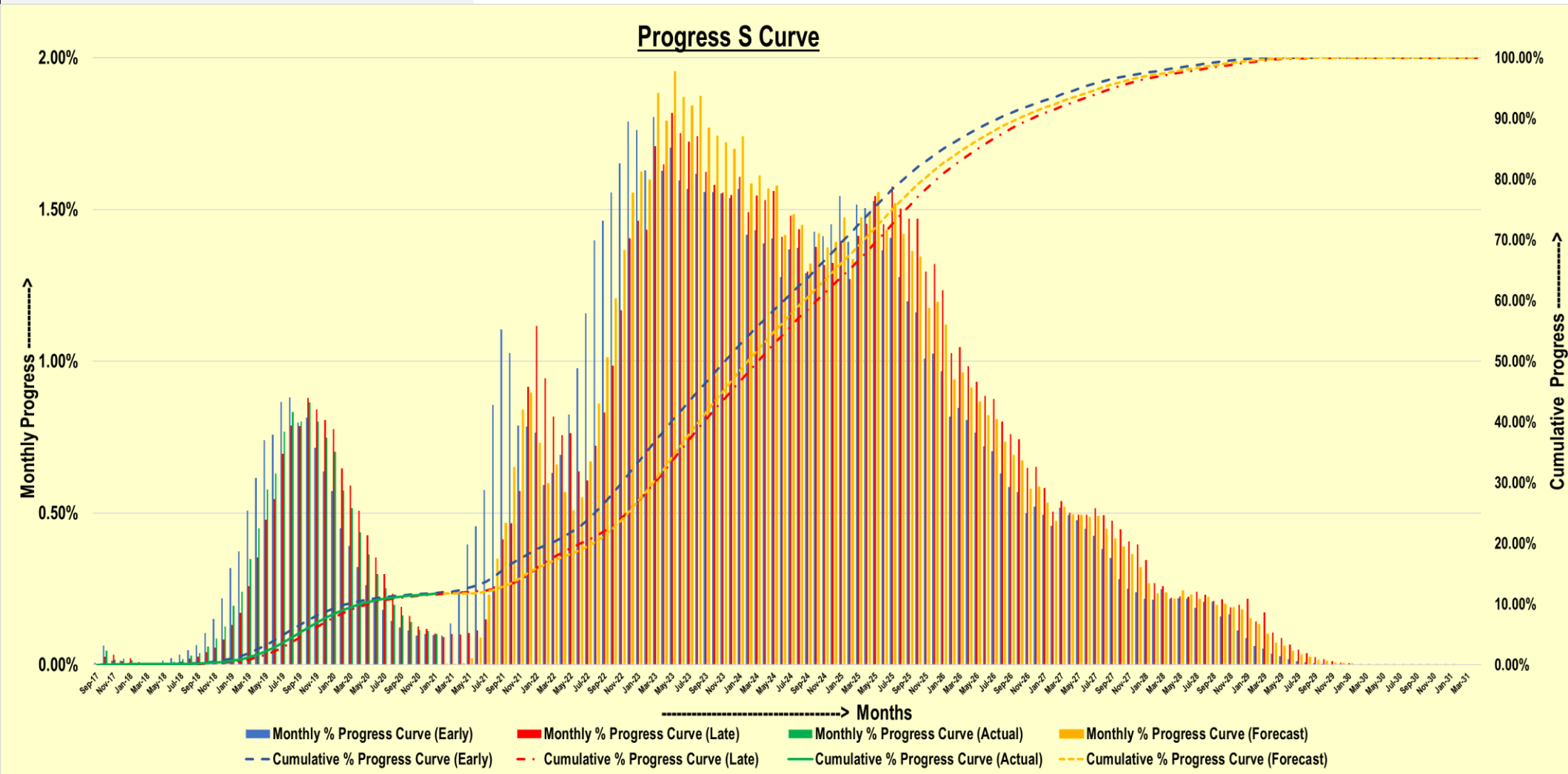
**Note:-This report will only be generated if contractor provides forecast Start / Finish dates for all the pending (EP ≤ Status date) deliverables/activities**

## Wow !!! Factor

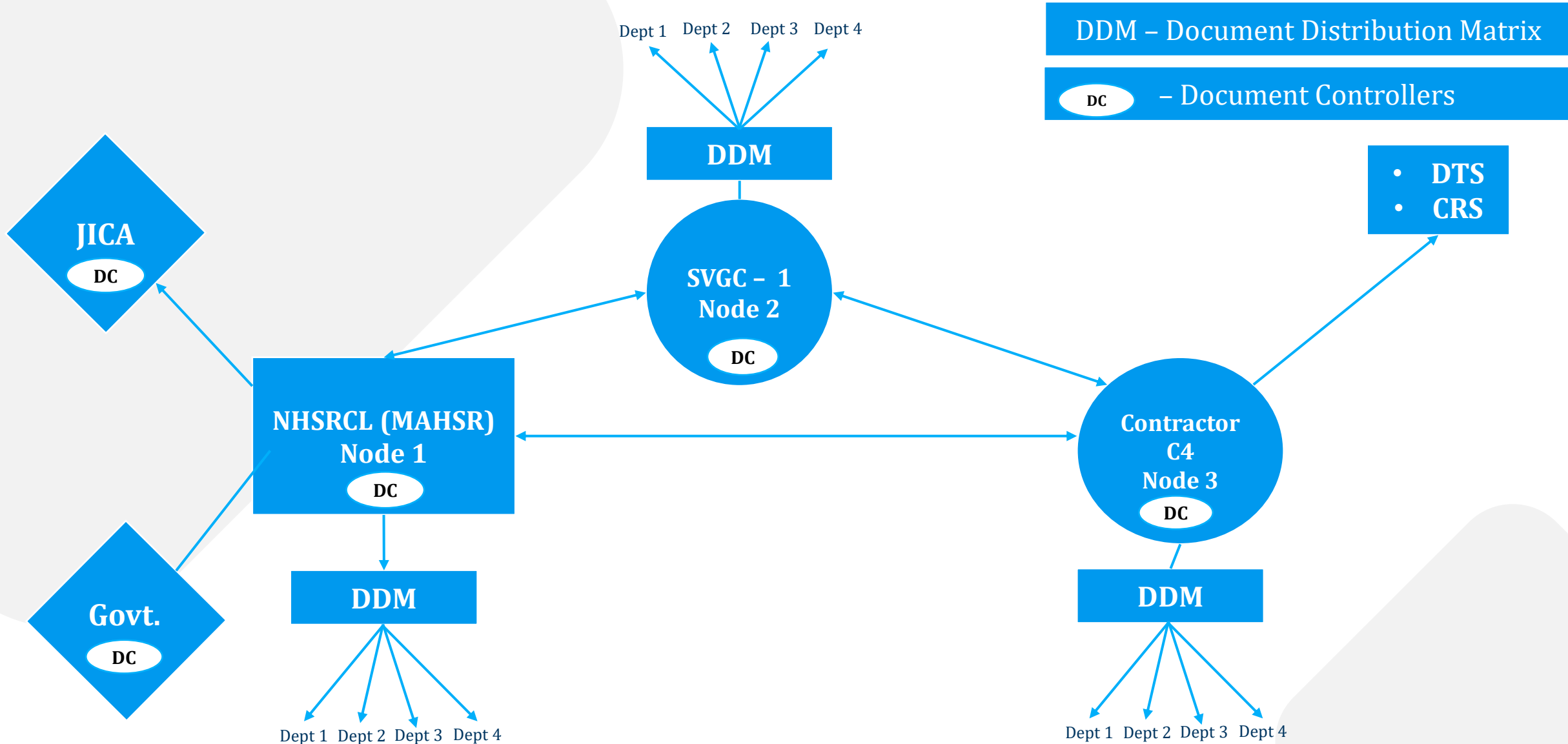
Status as of 31 Jan 2021

**Delay Based On Forecast**

- 21**  
Delayed
- 6**  
On Schedule
- 9**  
Before Schedule



## Communication Management



DDM – Document Distribution Matrix

DC – Document Controllers

## Communication Management

### Communication Types

- Letters
- Technical Document Submissions through DTS
- Invoices
- NCRs
- RFIs
- RFCs
- Miscellaneous

### Submission Purpose

- II – Issued for Information
- IC – Issued for Comments
- IA – Issued for Approval

### Technical Document Types

- Drawings
- Reports
- Inspection Test Plans (ITP)
- Method Statements
- Progress Reports
- Schedules
- Test Reports
- Material Submittals

- DPR
- WPR
- MPR

### Category

- EOT Request
- PCNs
- Claims
- Disputes

### Approval Code

- A – NONO Approved
- B – NONOC Approved with comments
- C – NOO Rejected (Revised sub)
- D – Retained for Information

### Document Distribution Matrix

- Project
- Contract
- Planning
- HSE
- QA/QC
- Civil
- Structural
- Track
- Electrical
- S&T
- Finance

### Features

- DTS – Document Transmittal Sheets
- CRS – Comments Resolution Sheets
- Online Commenting / Viewing (Internal & External Commenting)
- Integration with Emailing System

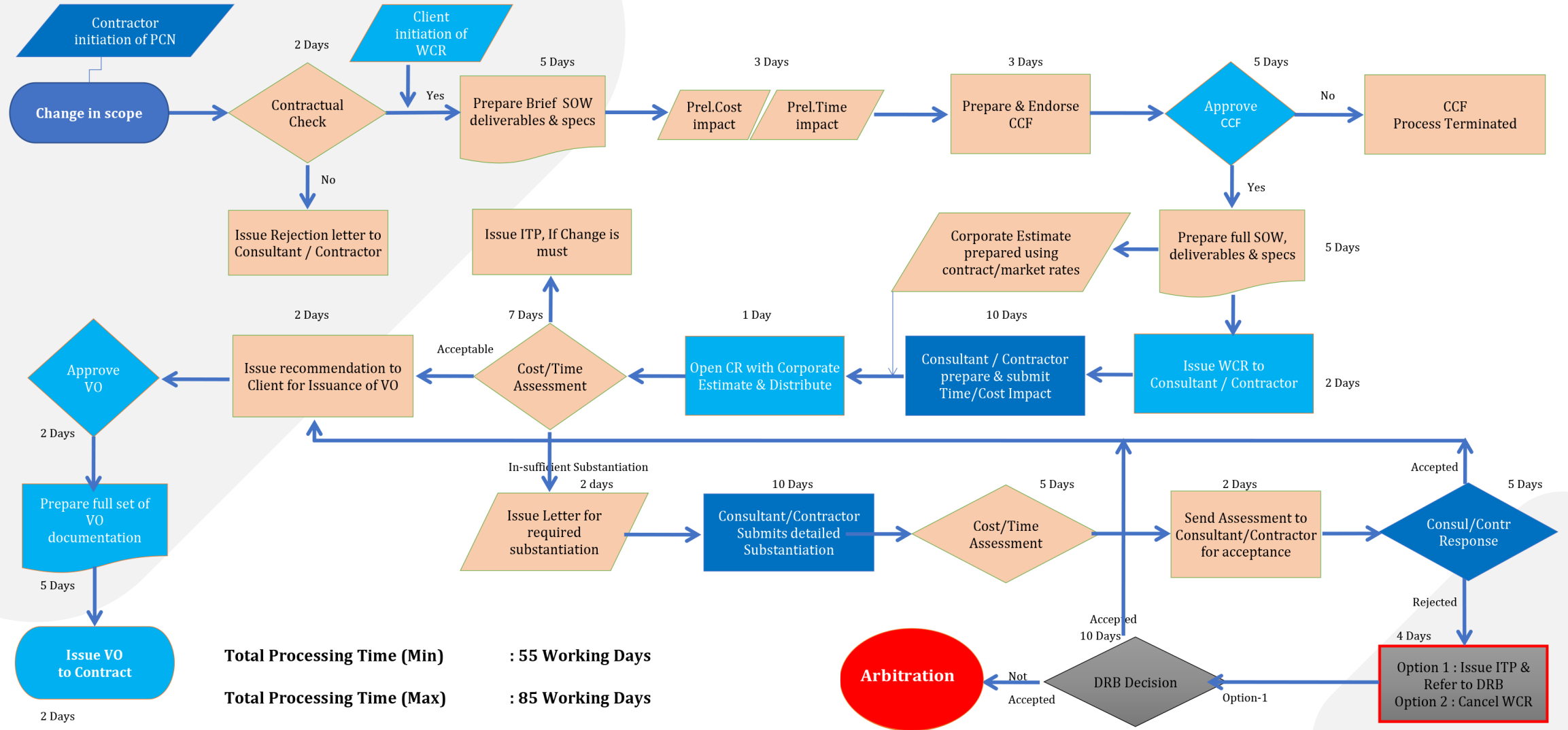
### Revision Control

- 1<sup>st</sup> Submission – 0
- 2<sup>nd</sup> Submission – 1
- 3<sup>rd</sup> Submission – 2
- 4<sup>th</sup> Submission – 3

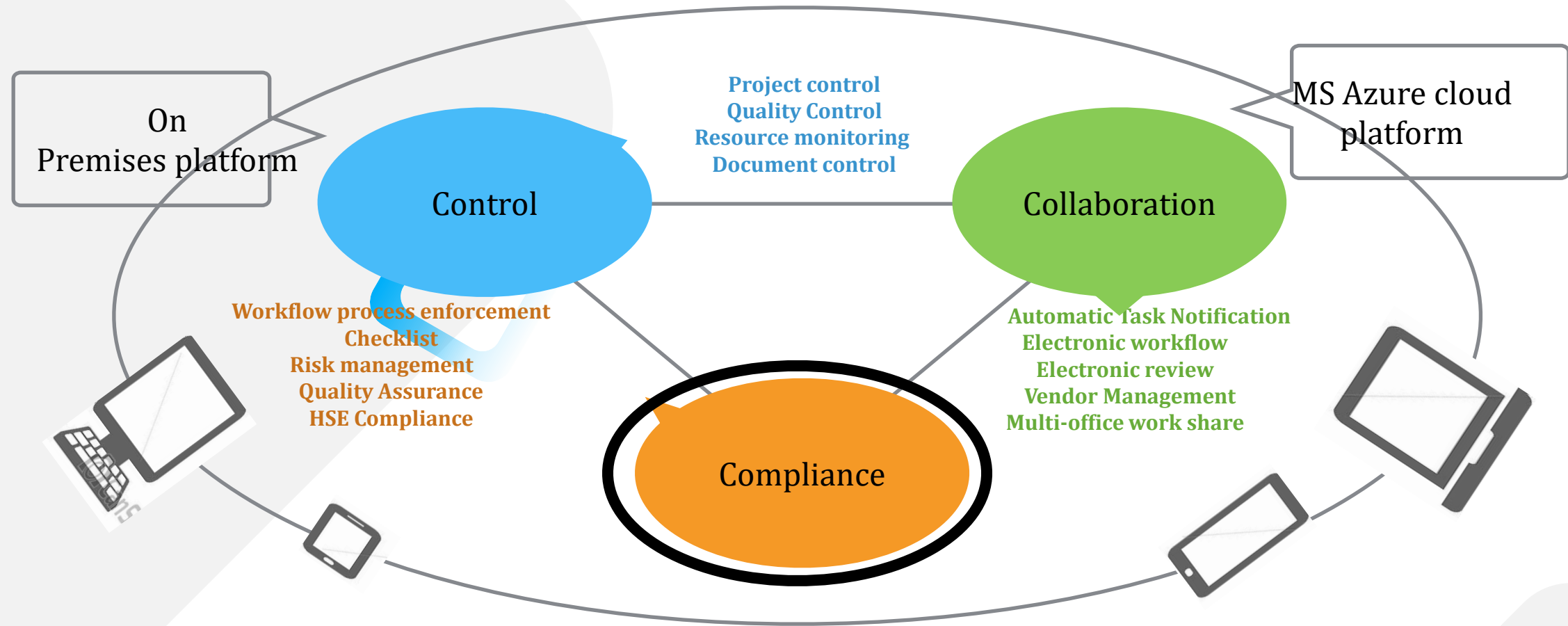
## PMS Output : Document Controls Register

Client's Logo		Project : Mumbai-Ahmedabad High Speed Rail Package : C4 Document Controls Register											Contractor's Logo			
SL No.	Document Number	Document Name	Subm. Purpose code	Revision:-0				Revision:-1				Revision:-2				
				Sub. Date	Response Code	Response Date	Client Delays	Sub. Date	Response Code	Response Date	Client Delays	Sub. Date	Response Code	Response Date	Client Delays	
DCI:- Document Control Index																

## Change Management Process



# Q & A Session ??



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 info@probtg.com

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# Thank You



## *Bridging Success*

*Let's Bridge The Gap Together*