



THE 21ST INTERNATIONAL
OPERATIONS & MAINTENANCE
CONFERENCE IN THE ARAB COUNTRIES

Facility Management for a new world

How FM is transforming to adapt to rapidly
changing global considerations

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Leadership. Thinking Ahead. Innovation.

Insights driven by 25+ years In FM & Asset Management...

- Senior Executive Director - Facilities Management, Imdaad Group
- MEFMA Vice President
- Global FM Vice Chair
- IAAPA Advisory Board Member

- Stints at leading corporations – asset owner + service provider
 - Senior Executive Director - FMS, Imdaad Group
 - COO, Global Village
 - Dubai Parks & Resorts | SAM | Idama | Emaar | du | Etisalat
 - Founding Operations Director, Burj Khalifa





The Impactful FM methodology

Insights driven by 25+ years In FM & Asset Management...

...and the desire to redefine the way FM and asset management drives change

Impactful FM

A formula for the practice of Facility Management and Asset Management in acknowledgement of the impact it has – commercial, economic, social, environmental and more – beyond the apparent and immediately visible





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Communities of the future

A built environment perspective

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A vision for future cities – which started way in the past

A vision for future cities which started way in the past



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Future cities will be collections of megaprojects

To ease urban strain and create thriving, vibrant and healthy communities...

...the future is self-contained mixed-use townships...

...where assets for people to live, work, play, socialize and access social infrastructure in close proximity to each other.

In one word - **megaprojects**





Megaprojects and cities of the future will be...



Intelligent

Making intelligent decisions using the power of process and integrated technology to reduce risk and improve user satisfaction



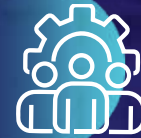
Immersive

A mixed reality world combines the physical and digital to empower building operators as they deliver top-quality services to users



Informed

Using the power of data and contemporary technologies like AI / ML to deliver insights that make built environments efficient and safe



Intuitive

Driven by technology and interfaces that make the ecosystem smart and easy to engage with lies at the heart of evolved built environment experiences



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Major drivers

What is enabling the transformation

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At the heart of real impact

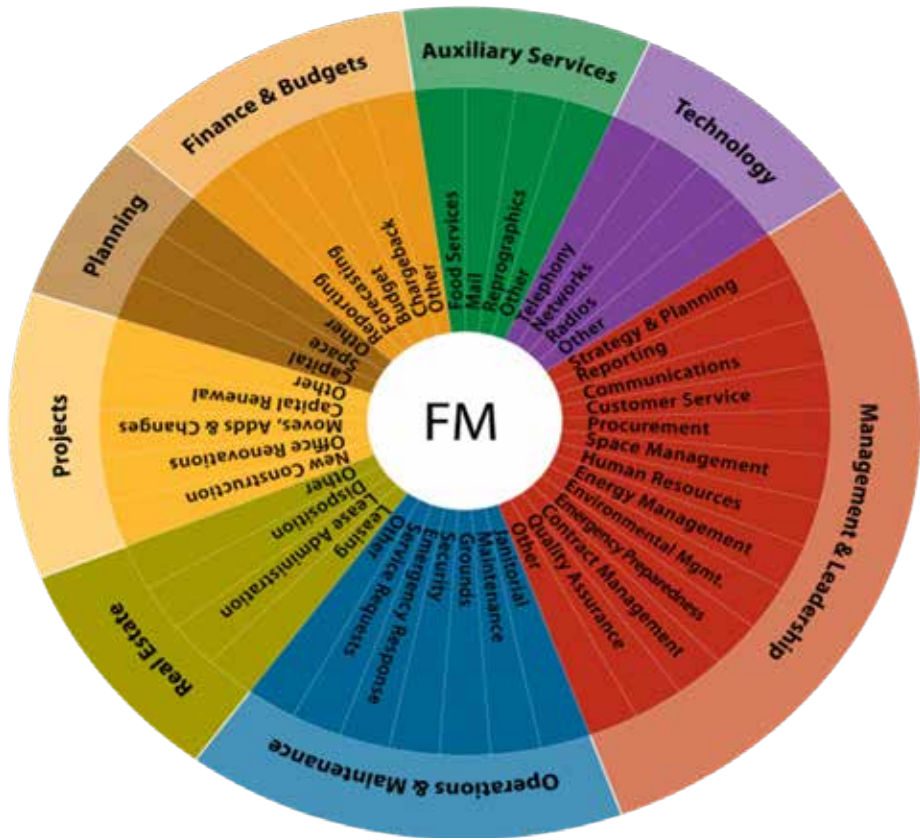




Role of FM in achieving this intent

A multiple-disciplinary practice that can ensure functionality, comfort, safety and efficiency of the built environment by integrating people, place, process and technology.

Maximized by incorporating core competencies: leadership and strategy, finance and business basics, operations and maintenance, technology, occupancy and human factors, environmental and sustainability stewardship, emergency preparedness / business continuity, communication, quality management systems, project management, real estate strategy and planning





Sustainability - the core pillar



**Reduce Environmental
Impact**



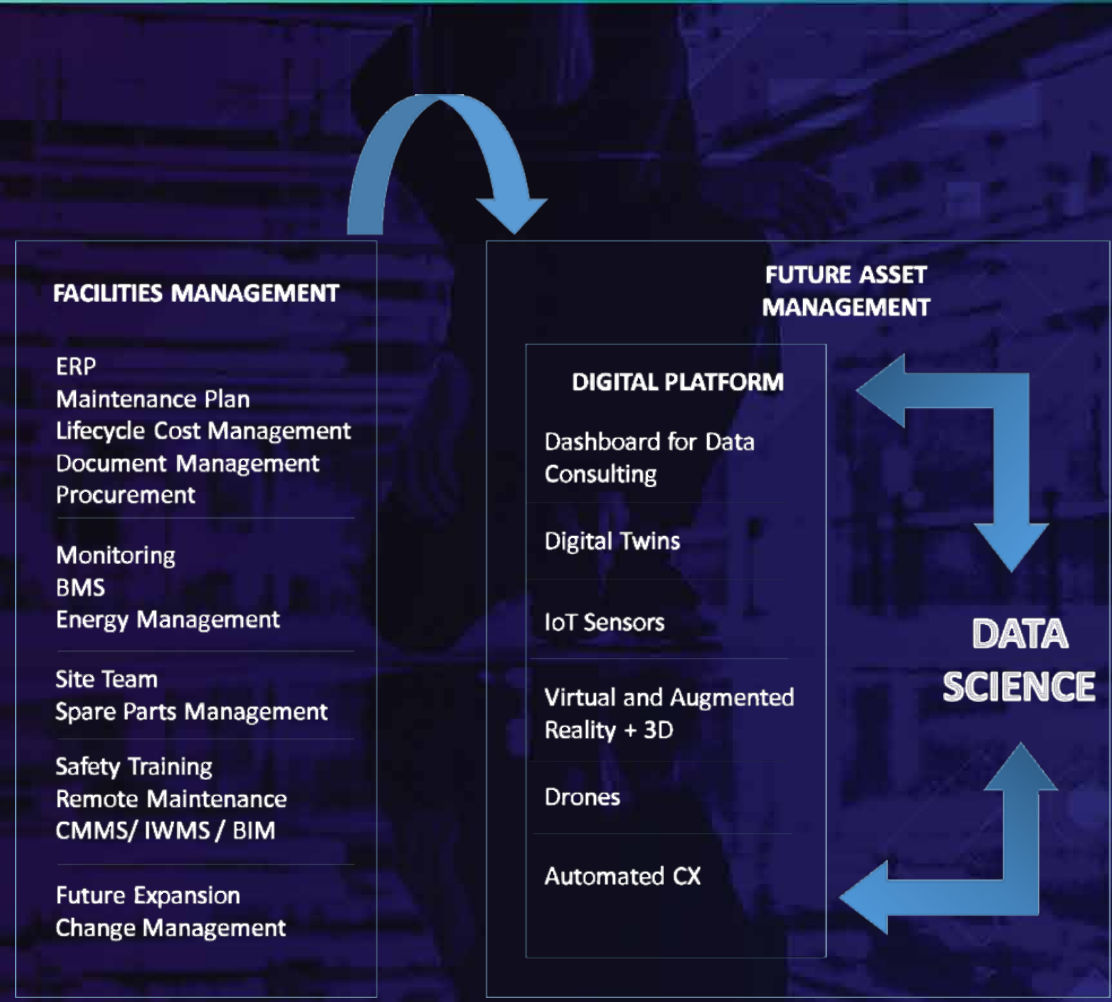
**Creating a more livable
and healthier environment
for employees and
customers alike**



**Increased brand loyalty,
improved employee
morale, and a more
positive public image.
(Social Sustainability)**

FM plays a critical role in ensuring that built environments are designed, constructed, and operated in a sustainable manner. Sustainability in FM refers to the management of the environmental, social, and economic impacts of the facilities and services. It involves optimizing the use of resources, reducing waste and emissions, improving the well-being and productivity of occupants, and contributing to the wider community and stakeholders

Key: adapt to latest trends





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Technology integration

The primary force multiplier

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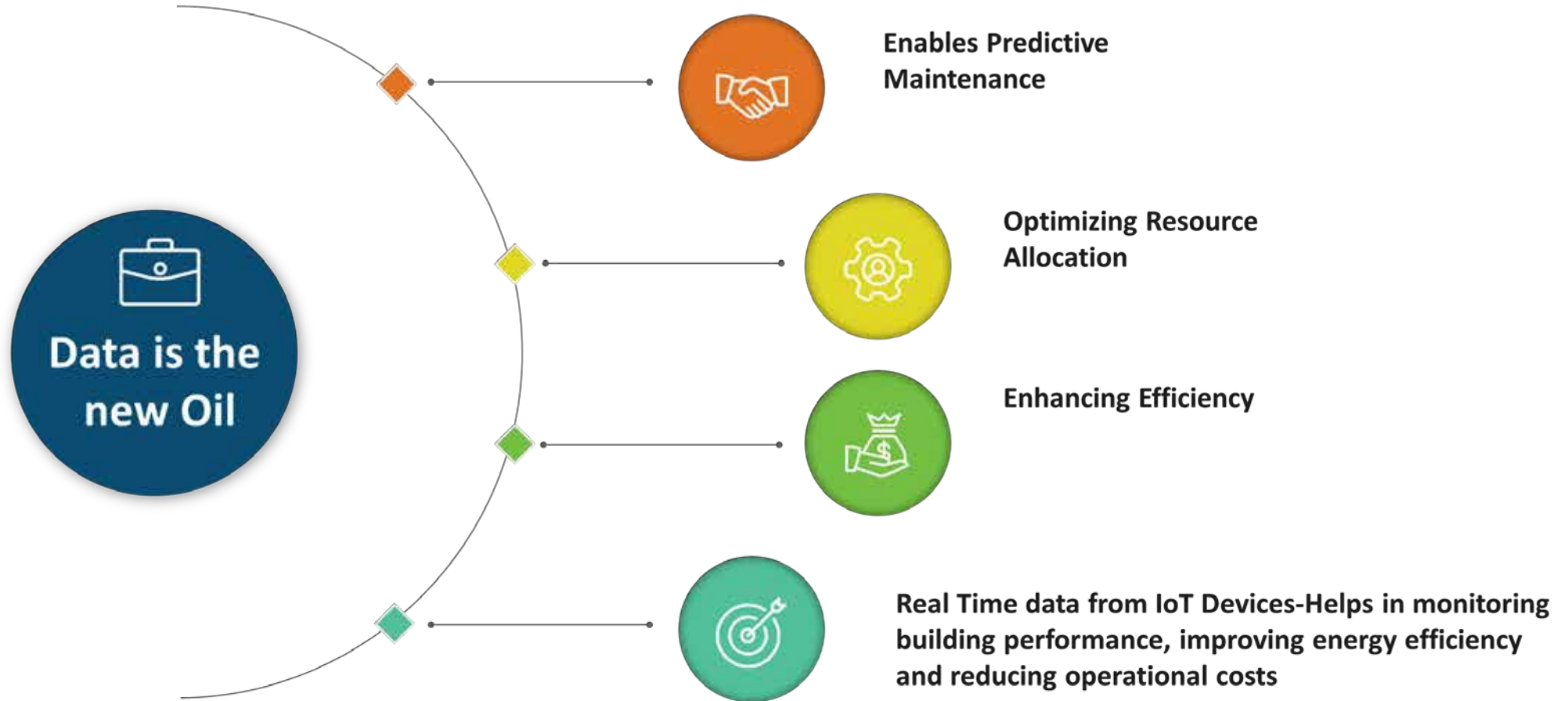


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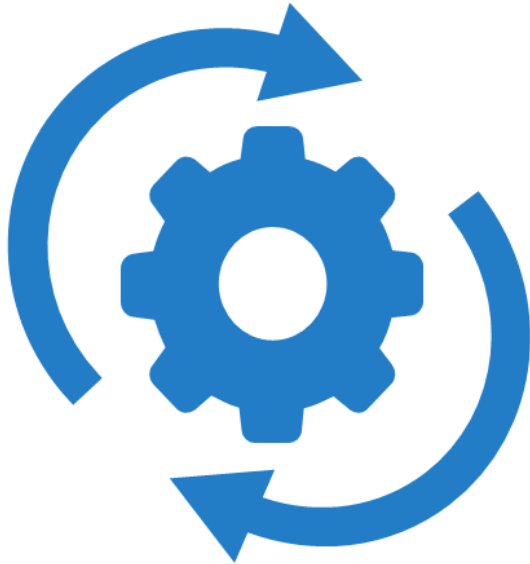




Data driving for FM innovation, change



Processes

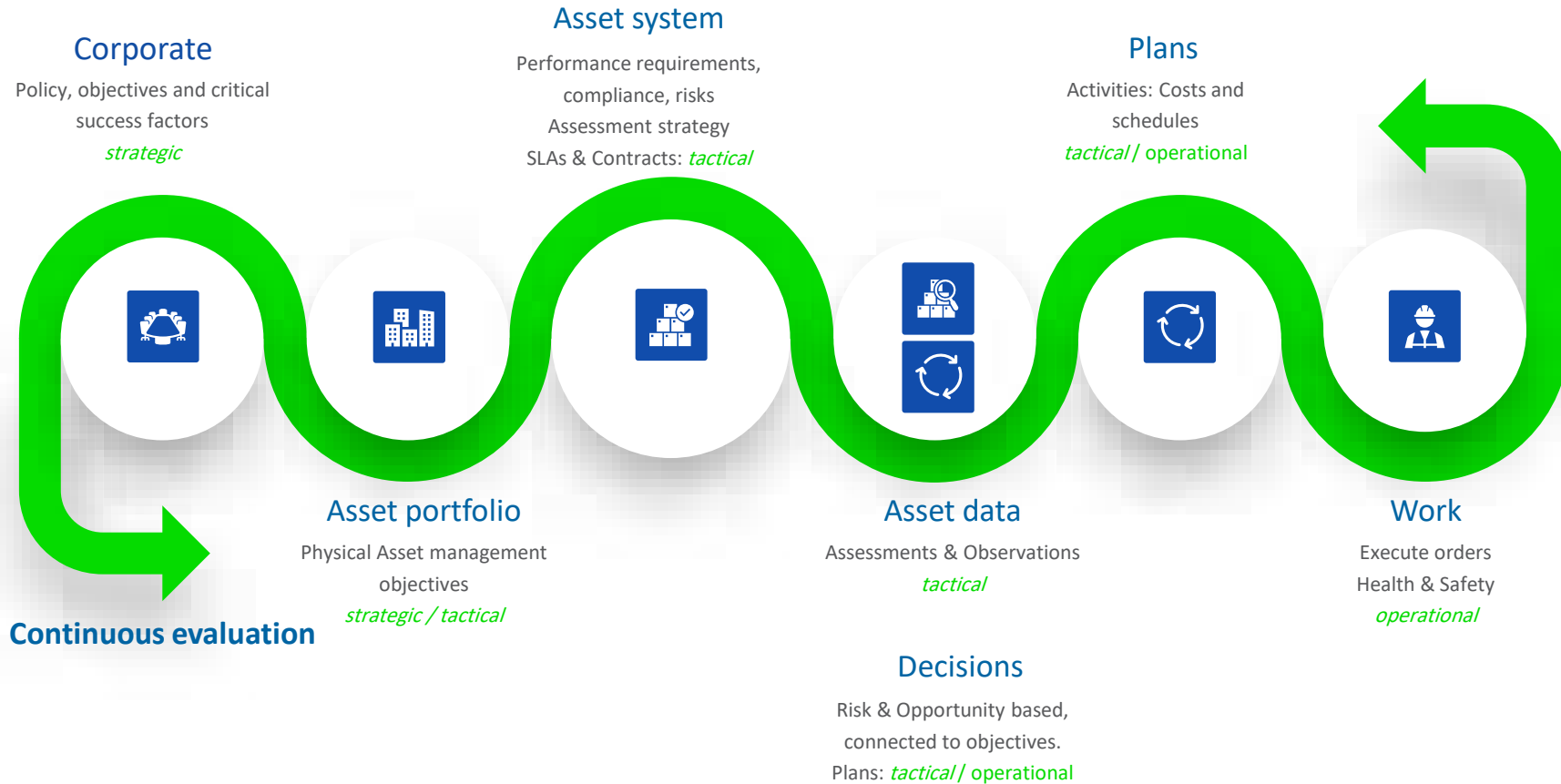


Data





Key to success: complete organizational coverage





Asset management data coverage

- Coding / Bar-coding / QR-Code
- Detail Asset information
- Asset Type and Subtype
- System / Connectivity
- Total view / location
- Purchase and Disposal Cost
- Depreciation Calculation
- Leasing info
- Maintenance Costs
- Allocation Cost to Departments
- Ownership and Usage costs
- Evaluation of Asset performance according to specifications
- Maintenance Contract
- Input of Invoice with Work Orders
- Integration to Finance System
- Document Attachments
- Capital Planning
- Transfer History
- Down time cost analysis
- Procurement Management
 - Requisition
 - Quotation
 - Purchase Order
 - Receipt
- Budget



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Detail Technology concepts and ideas

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EXICON.
International Group
مجموعة أكزيكون الدولية



Impact of reporting

Paper Reports Do Not Answer . . .



WHY was service requested?



WHERE is the service team located?



WHO is the closest to the job site?



WHEN did the person reach location?



WHAT is the quality of work done?



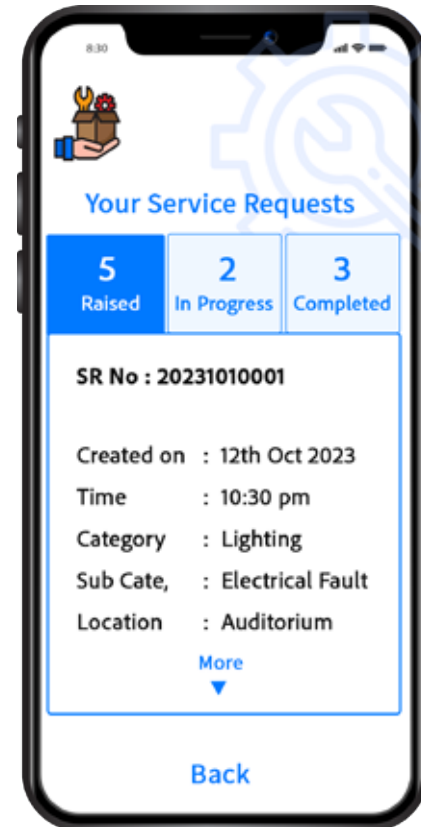
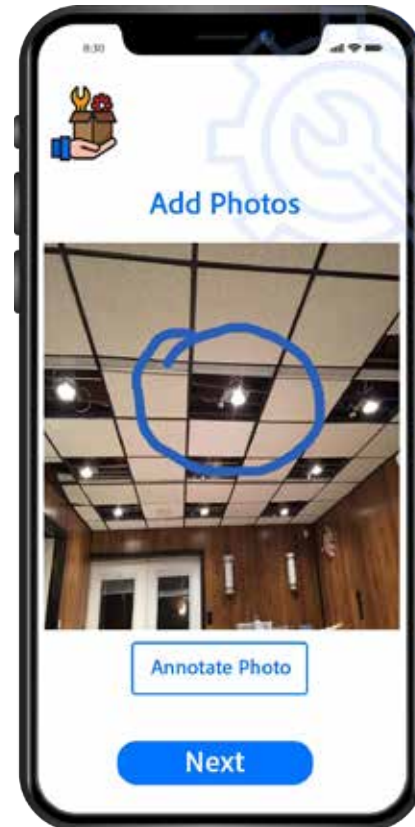
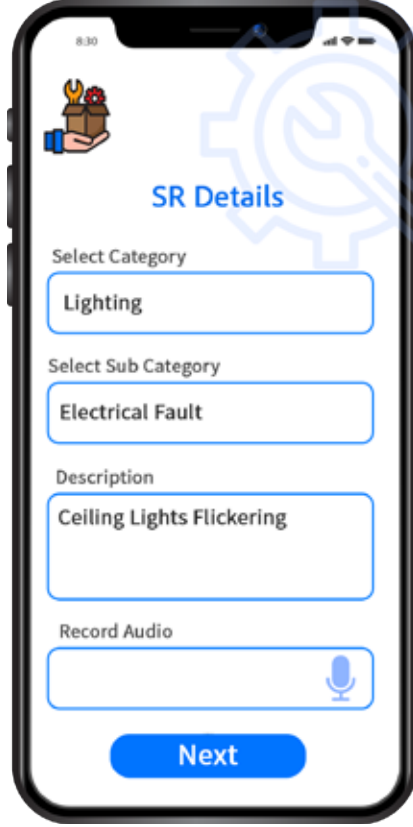
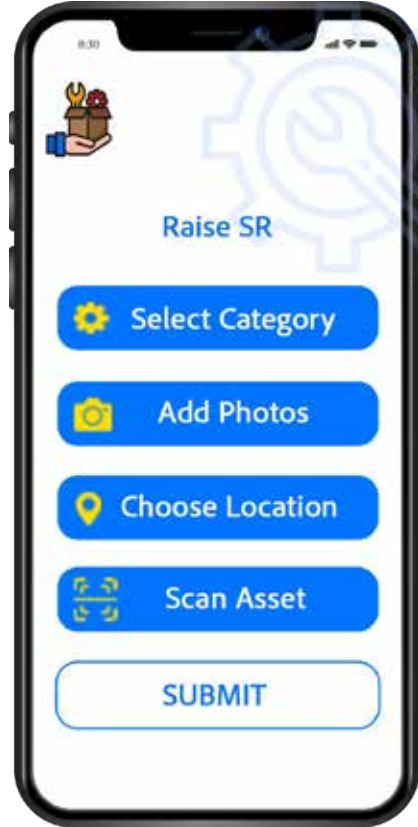
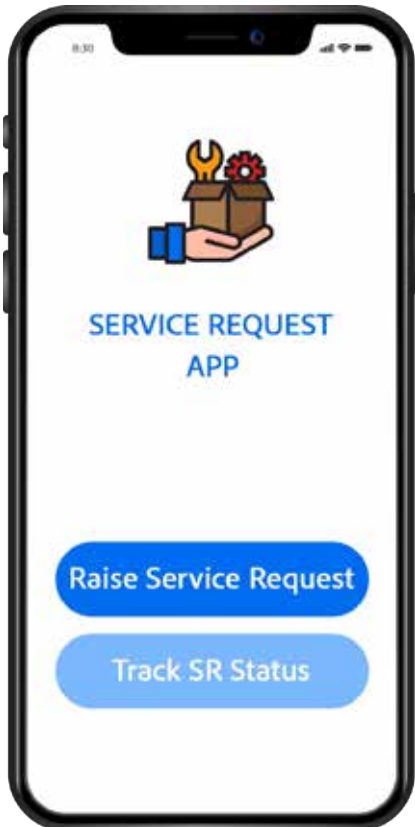
WHOM are we trying to impress?

IMPACT
Save Resources, Time
And Costs

REPLACE
Manual Processes
And Paper Reporting



Digitizing service request processes



Service Request App Makes Reporting Easy With Every Detail Needed Captured Digitally



The digital process

FM PORTAL Command Centre Login

Service Request Log (6)

	EDIT	DETAILS LINK	REQUEST NO.	CR
<input type="checkbox"/>		DETAILS	SR2205920230929	2023-0
<input type="checkbox"/>		DETAILS	SR2224720231012	2023-1
<input type="checkbox"/>		DETAILS	SR2224920231013	2023-1
<input type="checkbox"/>		DETAILS	SR2225020231013	2023-1
<input type="checkbox"/>		DETAILS	SR2225120231013	2023-1
<input type="checkbox"/>		DETAILS	SR2225220231013	2023-1

02. Burr
0

Create WO
TFM

Create WO
Commercial Operation

Create WO
Cleaning

Create WO
Waste Mgmt

Create WO
Marketing

Create WO
Entertainment







Service Requests Are Converted to Work Orders And Assigned To Action Owners / Service Providers
Duplicate Requests Are Merged, System Intelligently Selects The Appropriate Service Provider



The digital process

FM PORTAL Service Provider Login

TFM

 TFM - WO Assigned (21) TFM	 TFM - Assign Technician (27) TFM	 TFM - Technician Task (66) TFM
 TFM - SP Verification (38) TFM	 TFM - Store Keeper (3) TFM	 TFM - Civil Verification (15) TFM

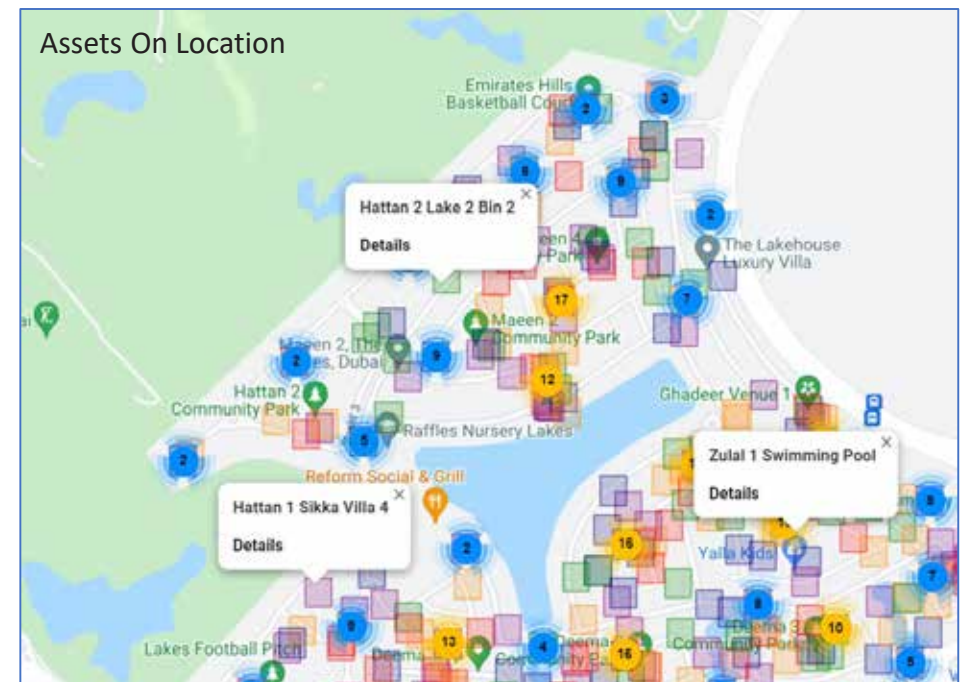
Service Provider Receives Work Order, With Team Visibility



The digital process

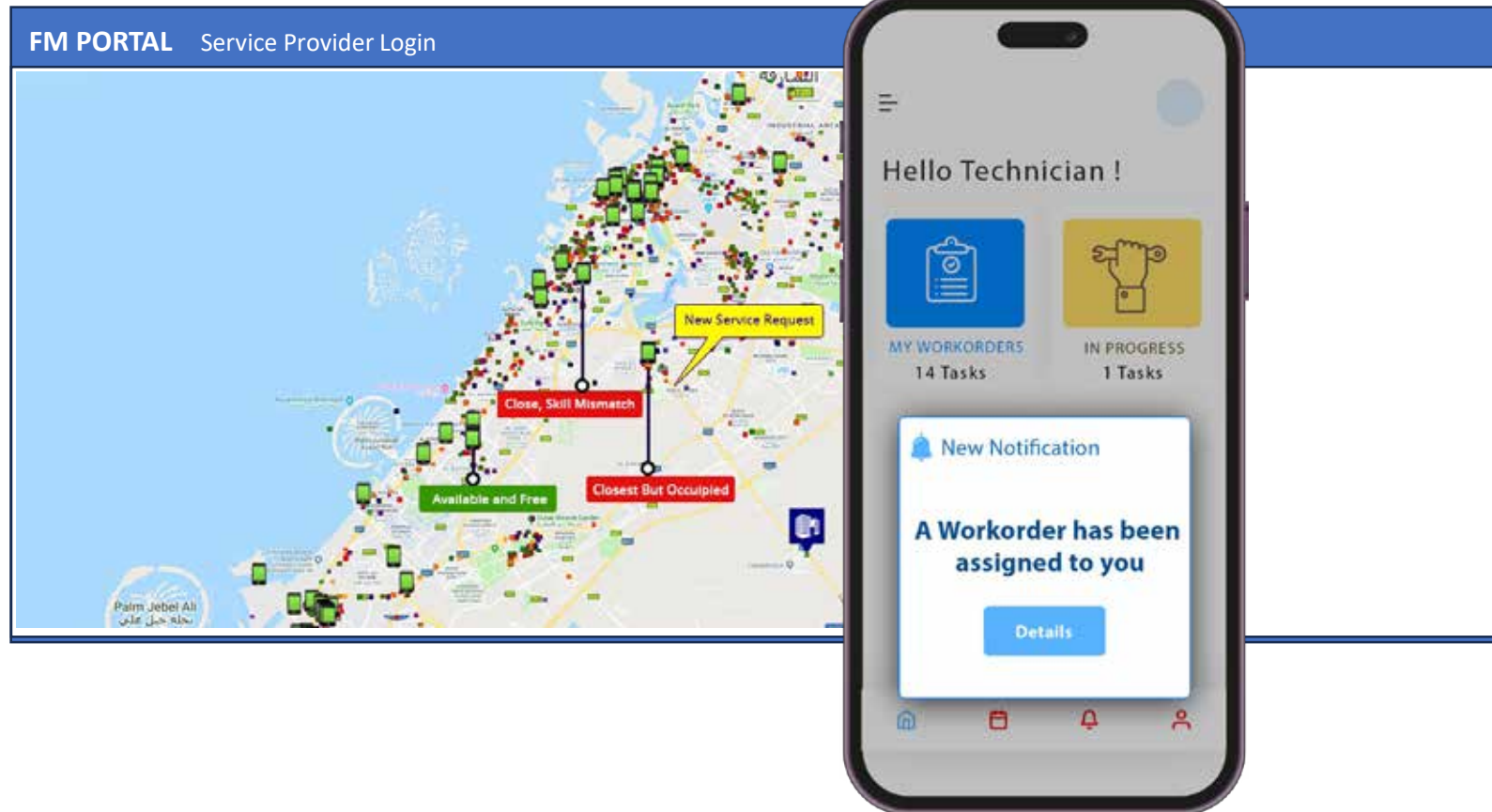
FM PORTAL

Service Provider Login



Service Provider Has Real-Time Visibility Of Team And Assets & Technicians On The Map

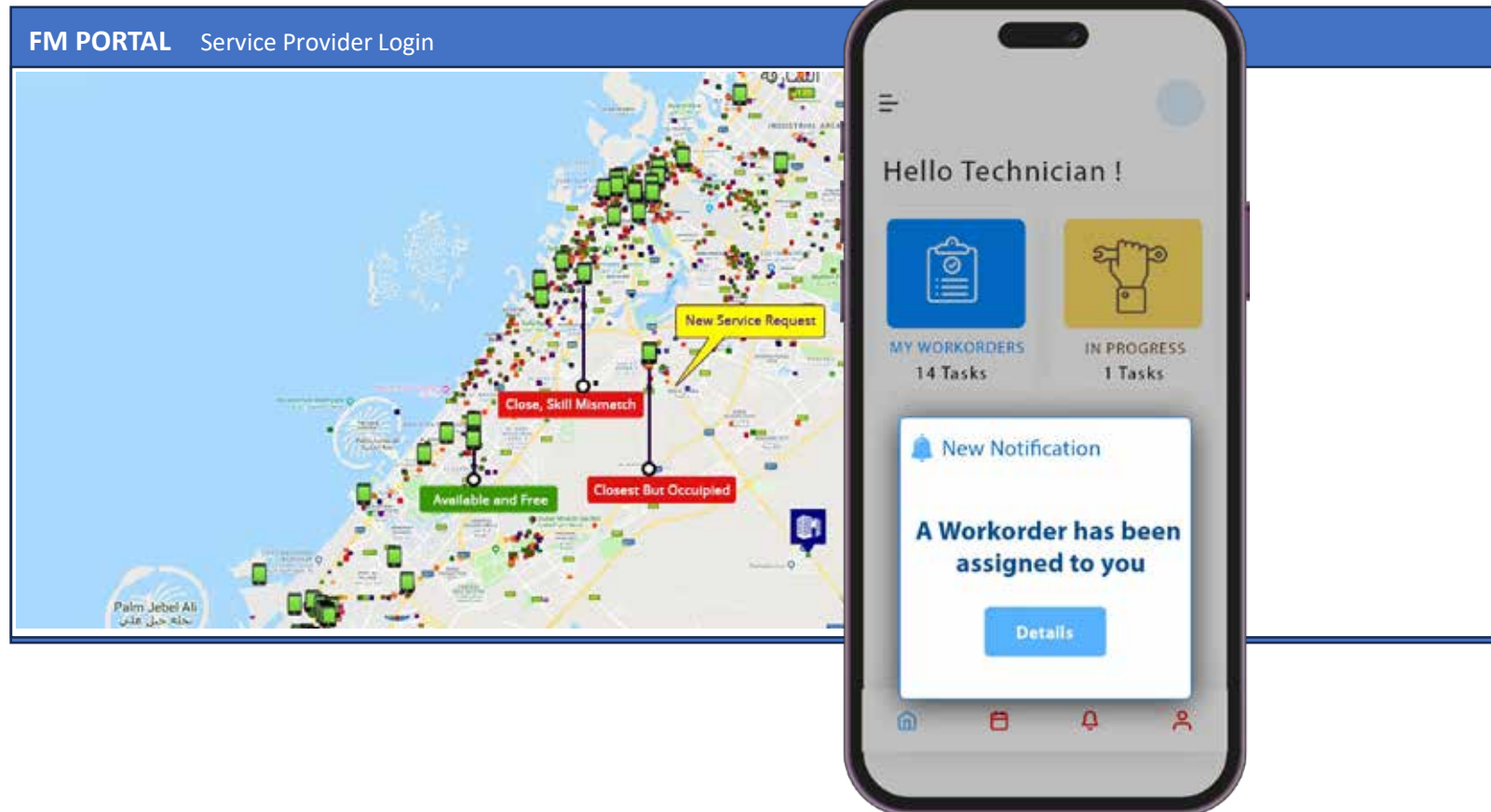
The digital process



The Service Provider Identifies The Closest Available Technician Fit For The Work Order



The digital process



The Service Provider Identifies The Closest Available Technician Fit For The Work Order



The digital process

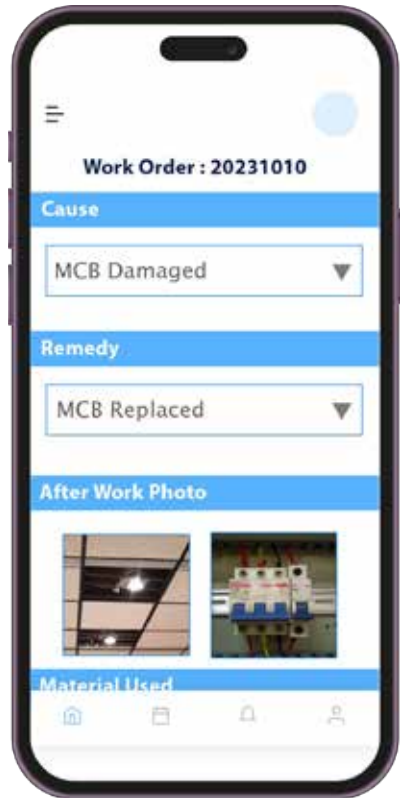
FM PORTAL



App Helps Technician Navigate To WO Location, Live Tracking Updates For Client and Supervisors



The digital process



Technician Completes The Work Order And Captures All Data Digitally

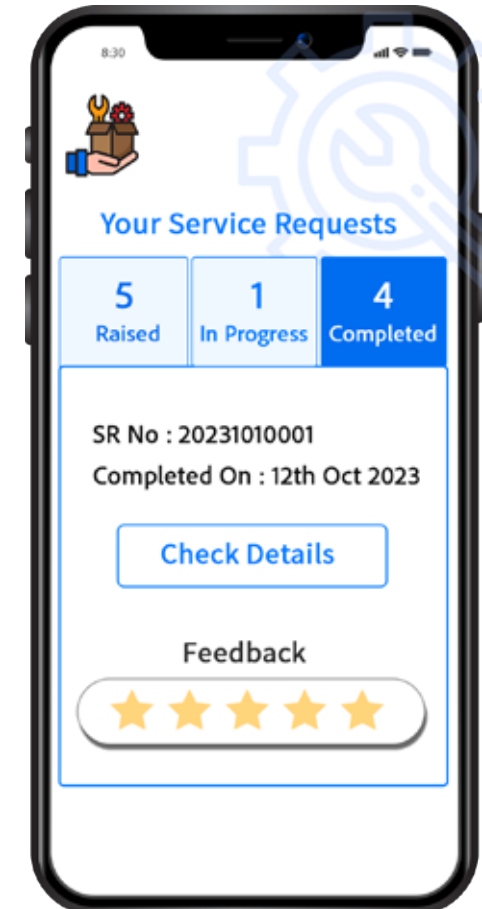


The digital process

FM PORTAL

VERIFICATION STAGE (175)


STATUS	NOTES	WORK ORDER NO.	SR CATEGORY	SR SUB CATEGORY	RESPONSE SLA	RESOLUTION SLA
COMPLETED		WO4960520230906	07. AC	04. AC Is Noisy	00:13	-7:02
COMPLETED		WO4763020230430	10. Landscaping	01. Other	36:10	-166:37
COMPLETED		WO4967020230913	10. Landscaping	04. Water Leaking From Irrigation System	-1:27	19:12
COMPLETED		WO4955020230831	07. AC	01. Other	00:03	-151:52
COMPLETED		WO4855620230507	06. Carpentry	12. Doors lock Faulty Key Missing	-1:36	-94:47
COMPLETED		WO4872220230516	06. Carpentry	08. Door Closer Not Working	23:22	30:22
COMPLETED		WO4871420230516	23. SSM	01. Other	-2:00	-328:23
COMPLETED		WO4962420230908	04. Plumbing Systems	04. Flexible Hose Leaking Or Damaged	45:19	-22:44



Completed Work Orders Are Verified With SLA Compliance Time Stamps



The digital process – PDF service report


SR20231010
12th Oct 2023

SR Details

SR No : 1020304 SR Category : Lighting
 SR Sub Category : Electrical Fault

Location : Auditorium Asset Code : A12557
 Location Remarks : Near RHS Asset Name :

Request Details

Requestor Name : Paul
 Requestor Remarks : Ceiling Lights Flickering
 OCC Remarks :
 Reported Date : 12th Oct 2023 Reported Time : 10:30

SLA


Response	Resolution
Target : 13th Oct 2023 12:30	13th Oct 2023 5:30
Actual : 13th Oct 2023 11:30 Achieved	13th Oct 2023 2:30 Achieved


Task Details

Task Name : Priority : Low
 Root Cause Category : MCB
 Root Cause : MCB Faulty
 Technician Remarks :

Material Used


Sr. No	Product	Quantity
1	MCB Panel Cover M1	1
2	Type B MCB AU-113	3

Technician Name	Technician Signature	Supervisor Name
Technician 1		Supervisor1



SR20231010
12th Oct 2023

Requestor Photos

Close Range Photo




Wide Range Photo




Technician Photos

Work Photo

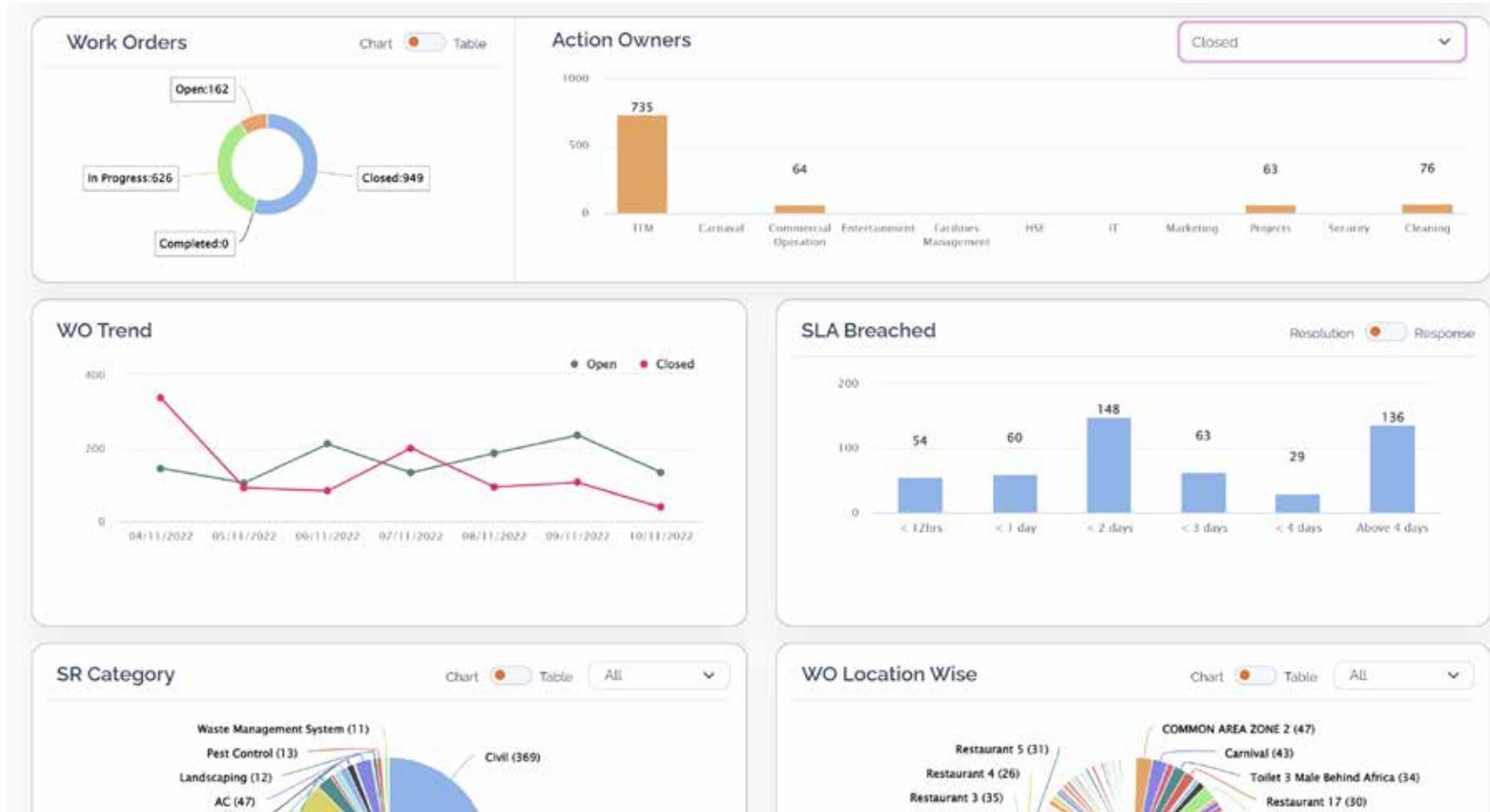


Work Photo



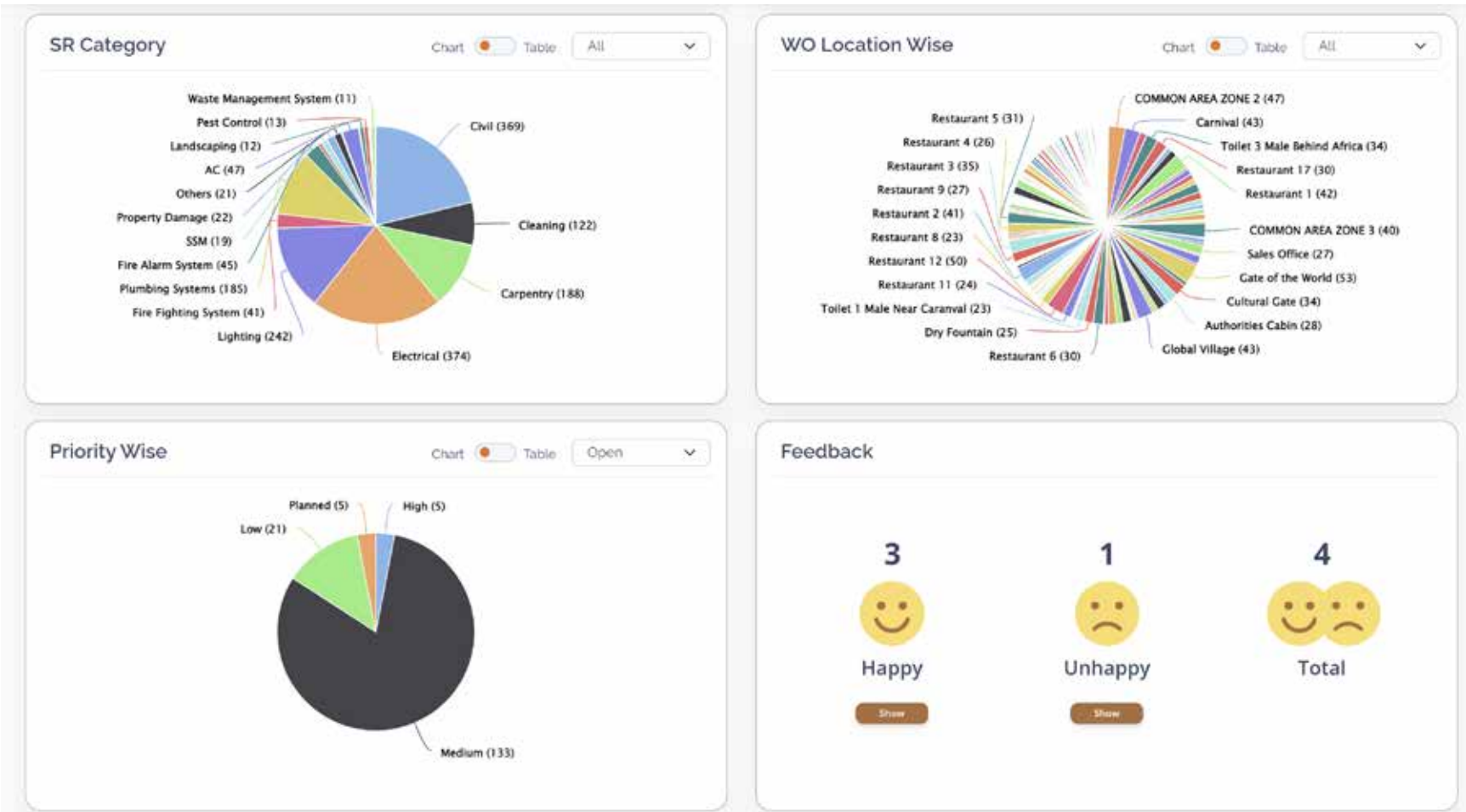


The digital process – SR BI Dashboard



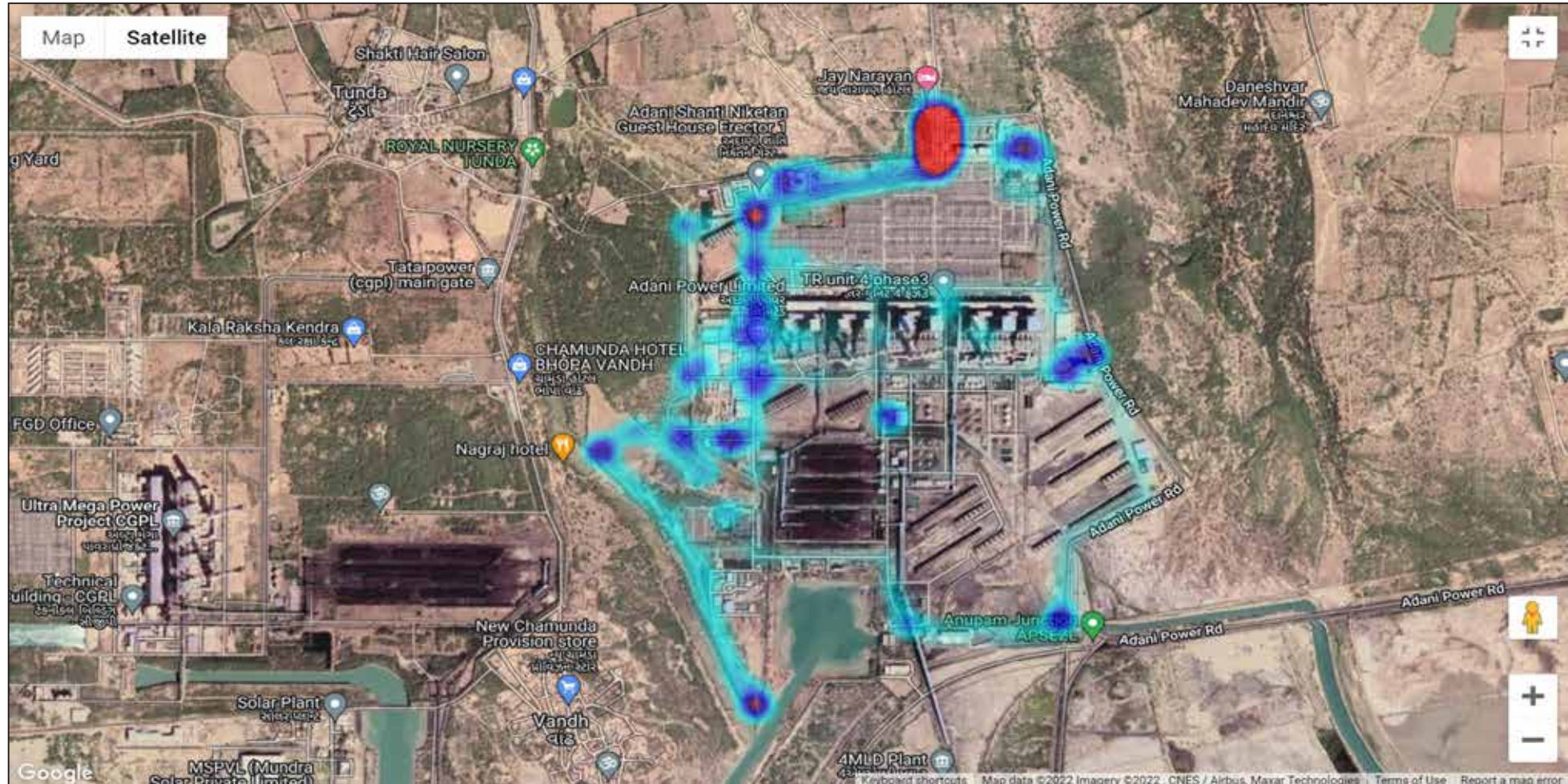


The digital process – SR BI Dashboard





The digital process – Heatmap Analysis





The digital process – Asset Dashboard



Assets Details

Asset : GV-F001-SO-FL01-T04-COR-DB-L5 | Asset Type : 01. Electrical

[BACK](#)

Fields	Value
Asset Purchase Cost	500
Asset Installation Date	02-10-2023
Asset Maintenance Threshold Amount	500
Asset End of Life Date	20-06-2024
Facility Category	Sales Office
Facility Name	Sales Office
Rooms / Location	T4-Corridor
Facility Number	F001
Facility Code	SO
Level	FL01
Location / Zone	T04
Sub Location	COR
Location Code	F001-SO-FL01-T04-COR
Asset Category	Electrical

Service History (6)

Total Cost : 0

Date	Task Name	Service Type	Username	Amount	Details
2022-06-25	GV-F001-SO-FL01-T04-COR-DB-P5_PPM-DB-12M0622-0025	PPM	GV25988 - Wasim Patel	-	SHOW
2022-09-10	PPM-DB-3M0922-0009_GV-F001-SO-FL01-T04-COR-DB-L5	PPM	GV25988 - Wasim Patel	-	SHOW
2022-12-18	PPM-DB-6M1222-0009_GV-F001-SO-FL01-T04-COR-DB-L5	PPM	GV25988 - Wasim Patel	-	SHOW
2023-03-06	PPM-DB-3M0323-0009_GV-F001-SO-FL01-T04-COR-DB-L5	PPM	GV25988 - Wasim Patel	-	SHOW
2023-06-06	PPM-DB-12M0623-0009_GV-F001-SO-FL01-T04-COR-DB-L5	PPM	GV26096 - Yuvaraj Nagarajan	-	SHOW
2023-09-02	PPM-DB-03M0923-0009_GV-F001-SO-FL01-T04-COR-DB-L5	PPM	GV25979 - Mohammed Arshad	-	SHOW



The digital process – PPM Dashboard & PDF Reports

PPM for February - 2023

January

314
Planned

5
Pending

277
Completed On Time

32
Completed Delay

February

330
Planned

31
Pending

299
Completed

173
Previous Completed

93
Previous Pending

472
Total Completed

Month Wise

Month	Planned	Pending	Completed On Time	Completed Delay
December	179	4	154	21
November	329	28	287	14
October	903	30	280	593
September	171	26	144	1

PPM Asset Wise - February

Asset Type	Planned	Completed On Time	Completed Delay	Assigned	Unassigned
Electrical	138	128	0	10	0
Plumbing	47	45	0	1	1
Mechanical	145	126	0	18	1

PPM - PFD - 2M

Name: Supremach/jeppaniam | Mail Name: OJGMH

Asset: PPM - PFD - 2M

Work Order	Work Order No.	Work Order Date
1	1000000000	10/01/2023
2	1000000000	10/01/2023
3	1000000000	10/01/2023

PPM - PFD - 2M

Task Name: PPM - PFD - 2M - 1000000000 - 10/01/2023 - 10/01/2023

Asset: PPM - PFD - 2M

Task Name: PPM - PFD - 2M - 1000000000 - 10/01/2023 - 10/01/2023

Asset: PPM - PFD - 2M

PPM Task

Task Name: PPM - PFD - 2M - 1000000000 - 10/01/2023 - 10/01/2023

Asset: PPM - PFD - 2M

Task Name: PPM - PFD - 2M - 1000000000 - 10/01/2023 - 10/01/2023

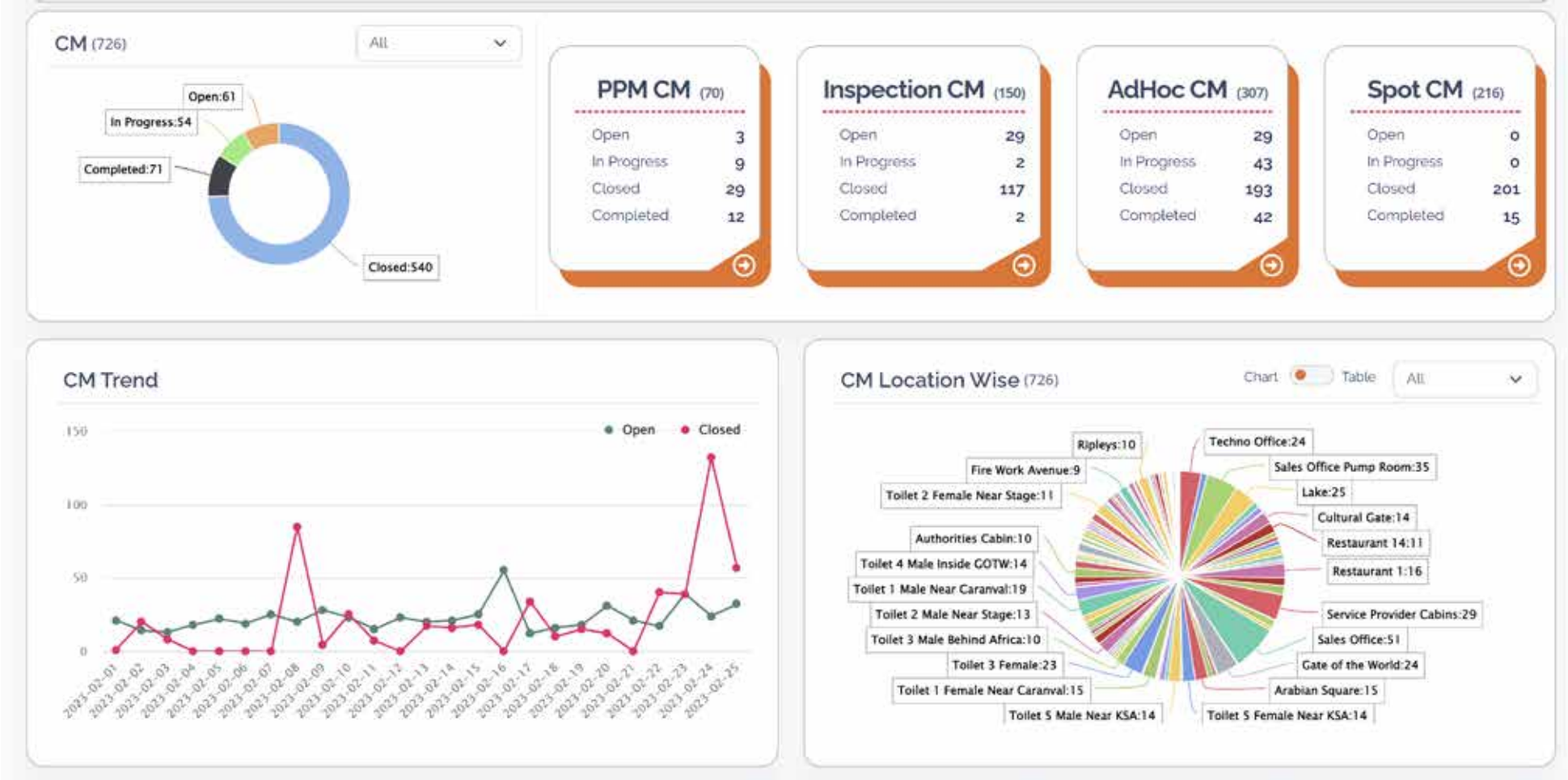
Asset: PPM - PFD - 2M

Task Name: PPM - PFD - 2M - 1000000000 - 10/01/2023 - 10/01/2023

Asset: PPM - PFD - 2M

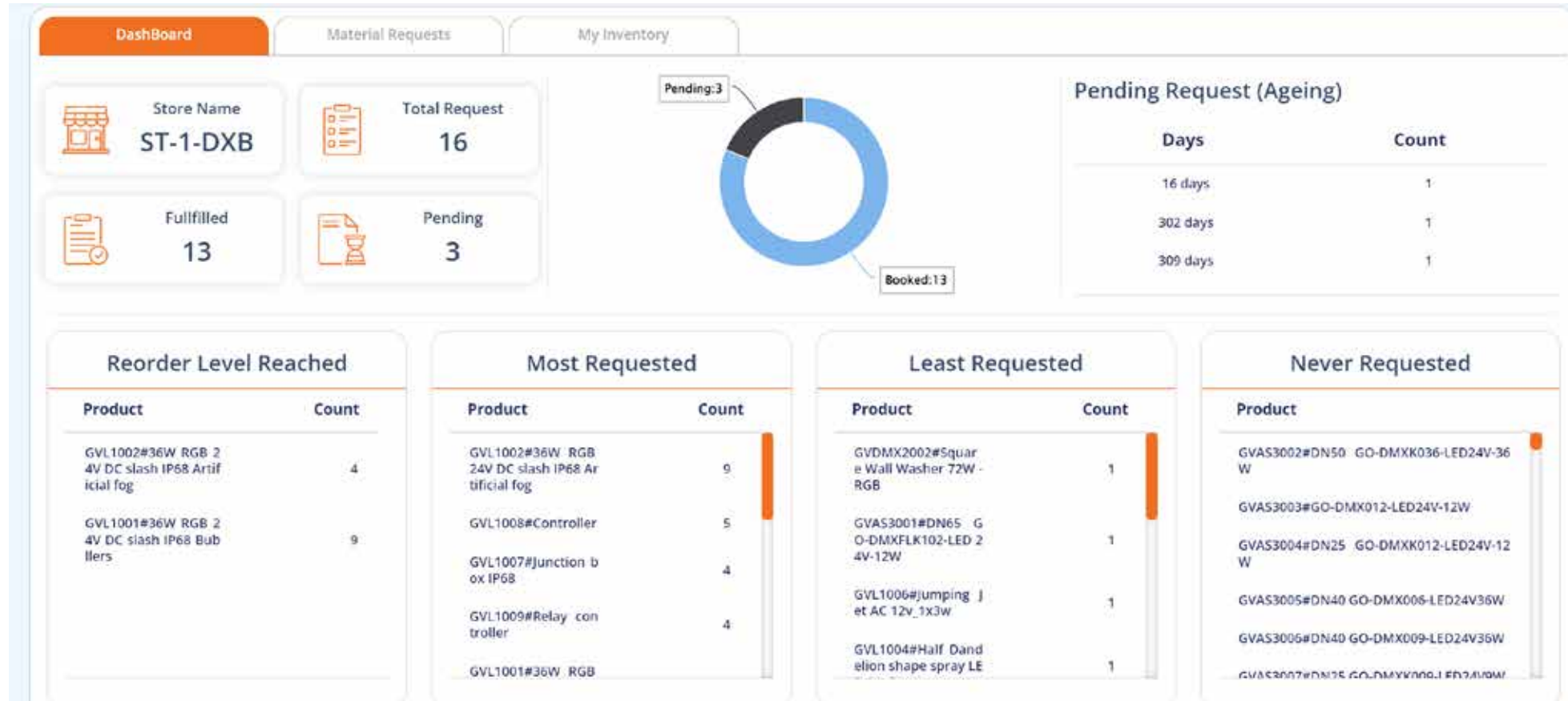


The digital process – Corrective Maintenance





The digital process – Store Dashboard





The digital process – Consumption Dashboard

Total Cost

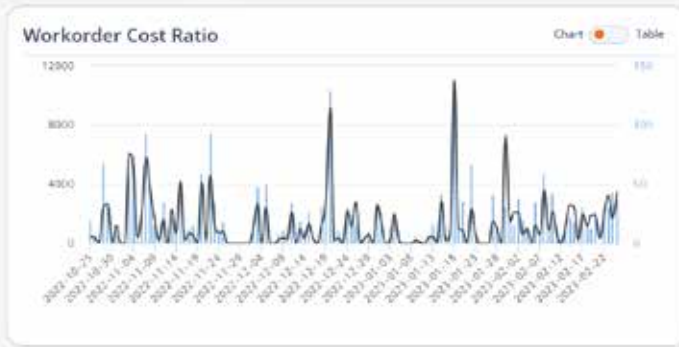
162463.57

No. Of WO / CM

1514 / 994

Average Cost

64.78



Consumption
Spare Wise
Work

Consumption
Spare Wise
Workorder Wise

All
WO
CM

EXPORT

Workorder No.	WO Type	GV Spares	Unique Spare (GV)	GV Total Cost	GV WO Unit Cost	Idama Spares	Unique
CM100020221025	CM	-	0	0.00	0	Other Spare 01(1),Other Spare 02(5),Other Spare 03(1),CELLPACK CABLE JOINT KIT 16SQ.MM 4 CORE(1),DUCAB ARMoured CABLE 16SQ.MM X 4 CORES),CABLE LUGS 10MM X 10MM PRC(3)	
CM100120221025	CM	-	0	0.00	0	Other Spare 01(2)	
CM100220221025	CM	-	0	0.00	0	Other Spare 01(1)	
CM100420221025	CM	-	0	0.00	0	36015#FOCUS SHATTAF SET MADE IN GERMANY(1)	
CM100720221025	CM	-	0	0.00	0	12623#REFRON INDIA FREON GAS R 22 30LDS(1)	
CM100820221025	CM	-	0	0.00	0	Other Spare 01(3)	
CM100920221025	CM	-	0	0.00	0	1009#AAA BATTERY 1.5V(4)	
CM101020221025	CM	-	0	0.00	0	Other Spare 01(1)	
CM101120221025	CM	-	0	0.00	0	Other Spare 01(1),Other Spare 02(4)	
CM101220221025	CM	-	0	0.00	0	1005#ENERGIZER BATTERY AAA 1.5V(30)	



The digital process – Indoor Service Requests

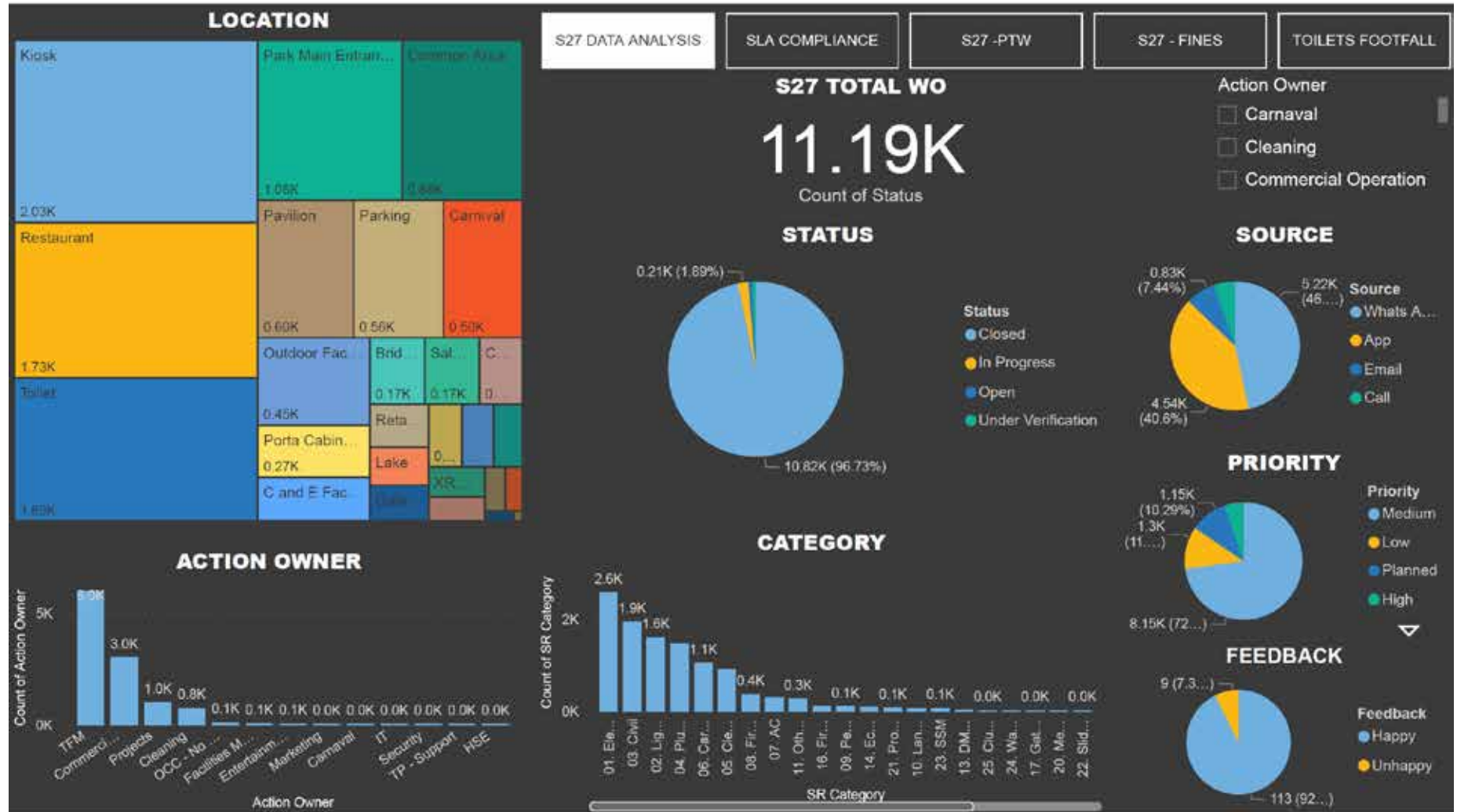


Floor	Efficiency		Completed / Tasks	
6		ZH 2A - 7F		2 / 3
5		ZH 2A - 6F		2 / 3
4		ZH 2A - 5F		2 / 3
3		ZH 2A - 3F		2 / 3
2		ZH 2A - 2F		2 / 2
1		ZH 2A - 1F		3 / 4
Floor	Efficiency		Completed / Tasks	
0		ZH Ground Floor 2A		11 / 12

For Airports & Residential Buildings

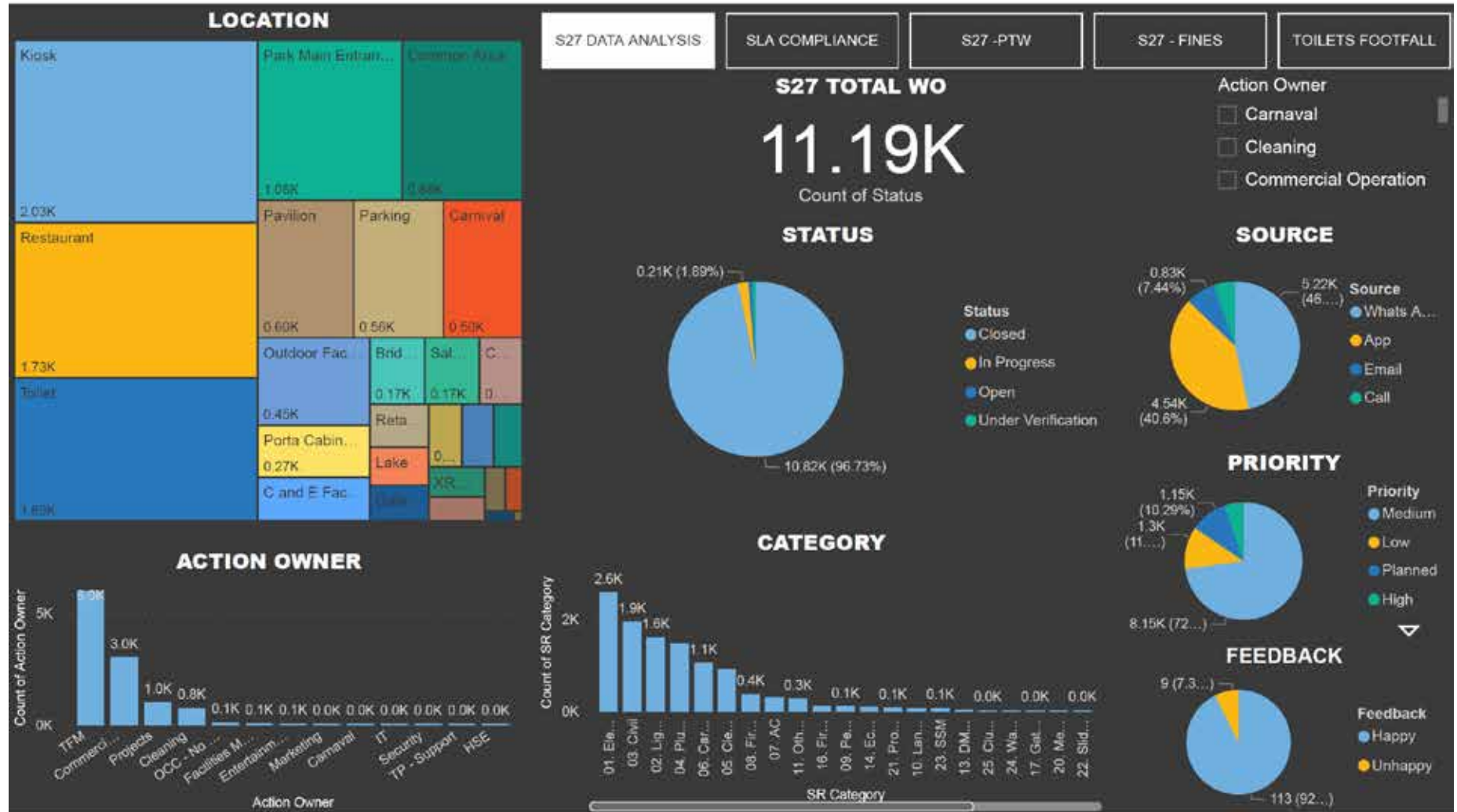


The digital process – Power BI Integration





The digital process – Power BI Integration





The digital process – Workforce Utilization

User Name : 121547 | Name : Bishnu Maya

Time	Place	26/01[Sun]	27/01[Mon]	28/01[Tue]	29/01[Wed]	30/01[Thu]
08:00	Block B Level 3 FW	Exp	Exp	08:12:16	08:03:04	Exp
08:15	Block B Level 4 FW - A	08:33:15	Exp	08:16:18	08:22:25	Exp
08:30	Block B Level 4 FW - B	08:42:14	08:50:03	08:27:34	08:24:36	08:41:41
08:45	Block B Level 5 FW - B	08:45:25	08:51:52	08:51:30	08:48:03	08:44:28
09:00	Block B Level 3 FW	09:06:43	09:01:22	09:16:20	09:10:52	08:59:12
09:15	Block B Level 4 FW - A	09:36:23	09:10:35	09:20:45	09:14:23	09:20:48
09:30	Block B Level 4 FW - B	09:40:20	09:23:27	09:23:34	09:42:56	09:31:40
09:45	Block B Level 5 FW - B	09:48:04	09:44:54	09:55:48	09:50:08	09:41:22
10:00	Block B Level 3 FW	10:03:25	10:14:20	10:01:17	09:54:09	10:03:03
10:15	Block B Level 4 FW - A	10:20:46	10:22:10	10:18:37	10:26:33	10:30:40
10:30	Block B Level 4 FW - B	10:43:20	10:40:48	10:27:56	10:35:02	10:36:57
10:45	Block B Level 5 FW - B	10:46:09	10:45:25	10:50:02	10:43:57	10:49:49
11:00	Block B Level 3 FW	10:57:42	11:13:07	11:16:52	11:03:19	11:19:23
11:15	Block B Level 4 FW - A	11:21:57	11:18:59	11:20:41	11:29:33	11:27:26
11:30	Block B Level 4 FW - B	11:41:50	11:45:48	11:38:31	11:32:28	11:35:42
11:45	Block B Level 5 FW - B	11:55:47	11:47:31	11:42:49	11:49:39	11:40:45

From Paper Checklists to Live Colourful Proof – Red: Work Not Done, Green Work Done



The digital process – Photo Proofs

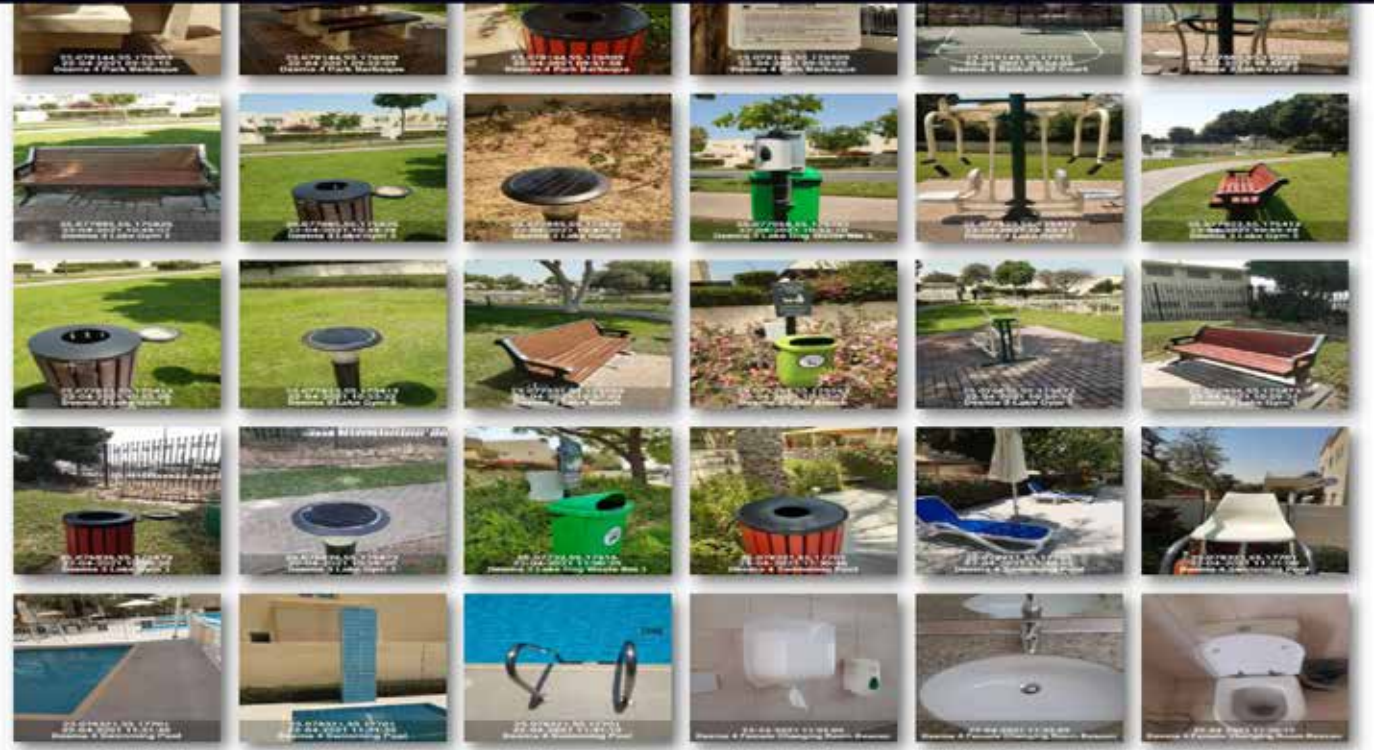
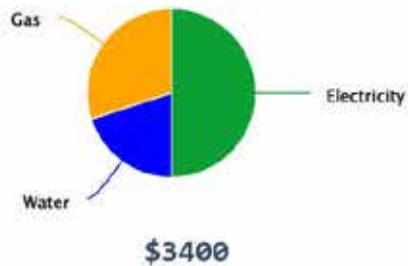


Photo Repository – Work Order Verification



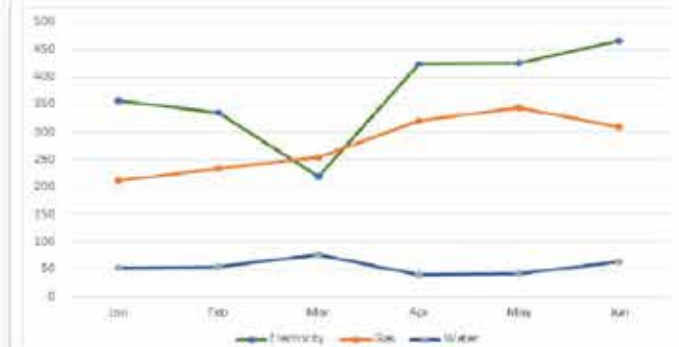
The digital process – Energy Management

Cost



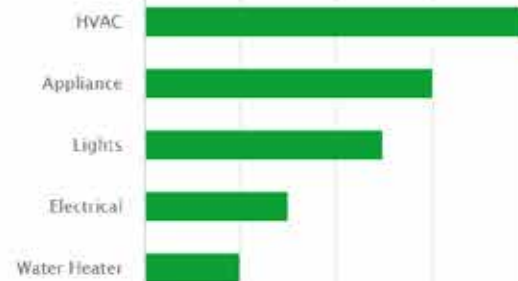
	Today	Yesterday
Electricity	40 kWh	52 kWh
Gas	40 gal	92 gal
Water	442 L	354 L

Consumption

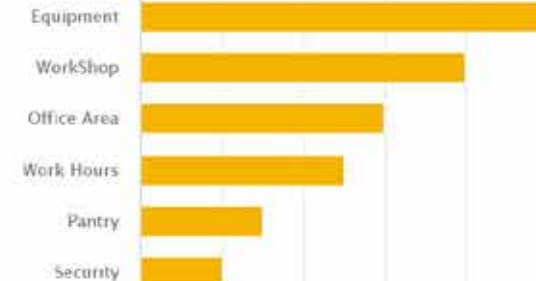


	This Month	Last Month	This Year
Electricity	1680 kWh ↑	1507kwh	14620kwh ↑
Gas	800 gal ↓	921 gal	9916 gal ↑
water	55 kL ↑	51 kL	812 kL ↑

Consumption By Assets

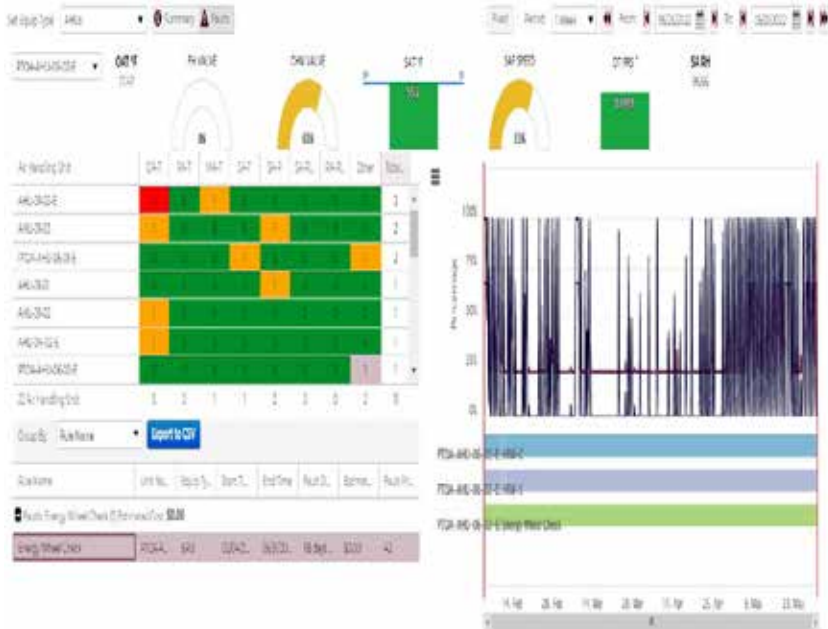


Consumption By Location





Technology & data-driven culture



- Observe facility operation at peak hours
- Analyze the data source, use data to improve effectiveness and customer satisfaction
- When facility is operating at peak (i.e. maximum number of users are present in the building) and weather condition is harsh, you can understand the operational parameters of the system at the full capacity of the various facilities.
- This is where you can analyze data from the system that will help you identify patterns to further improve your approach to managing, operating and maintaining this building
- This is the joy of collecting data, analyzing it and finally making a decision that is based on facts that enhance your own expertise and adeptness and reading the trends to make decisions.



Scope for iot system project-Case Study

Asset Classification	Count	Daily Inspection	No. of inspection per day	Avg. Time of Inspection (Minutes)	Proposed location	Craft Required
CHILLER	6	Yes	3 Times	10	R441	AC Technician
CHILLED WATER PUMP	11	Yes	3 Times	3	R441	AC Technician
MAIN DISTRIBUTION BOARD	153	Yes	1 Time	5	R531 & R441	Electrician
CAPACITOR BANK	122	Yes	1 Time	5	R531 & R441	Electrician
AHU & FAHU	40	Weekly	1 Time	5	R531 & R441	AC Technician

FRESH AIR HANDLING UNIT	
1	Check unit for physical damage, rust, deterioration, leakage
2	Check all panels, doors, door locks and light for proper operation
3	Check for any undue noise or vibration
4	Check & Note the water pressure gauge for inlet
5	Check & Note the water pressure gauge for outlet
6	Check the belt condition, clearance and adjust or replace if necessary
7	Check & Note the thermometer temperature for inlet
8	Check & Note the thermometer temperature for outlet
9	Check Electrical connections of panel board
10	Check unit mountings / anti vibration pads
11	Check the actuator / valves for proper operation
12	Check the chilled water pipe line leaks, insulation and cladding
13	Check the damper flap movements
14	Check and clean the condensate drain lines, drain tray
15	Check for any cooling coil leakages and damages
16	Check the physical condition of the ducts

Details of Assets for which daily inspection is performed

- FAHU and MDB/Electrical room has been selected for POC and below are the respective Daily inspection checklist

MDB/ELECT ROOM	
1	Door, hinges, lock condition and lightings
2	Check if any unusual noise, vibration
3	Check selector switches (set to Auto-Mode)
4	Check if any trip/ overload indicated
5	Record the current
6	Record the voltage
7	Check if the Unit is properly operating
8	Check Thermostat Settings - Temperature 24 degrees, Auto mode
9	Check if any leakages

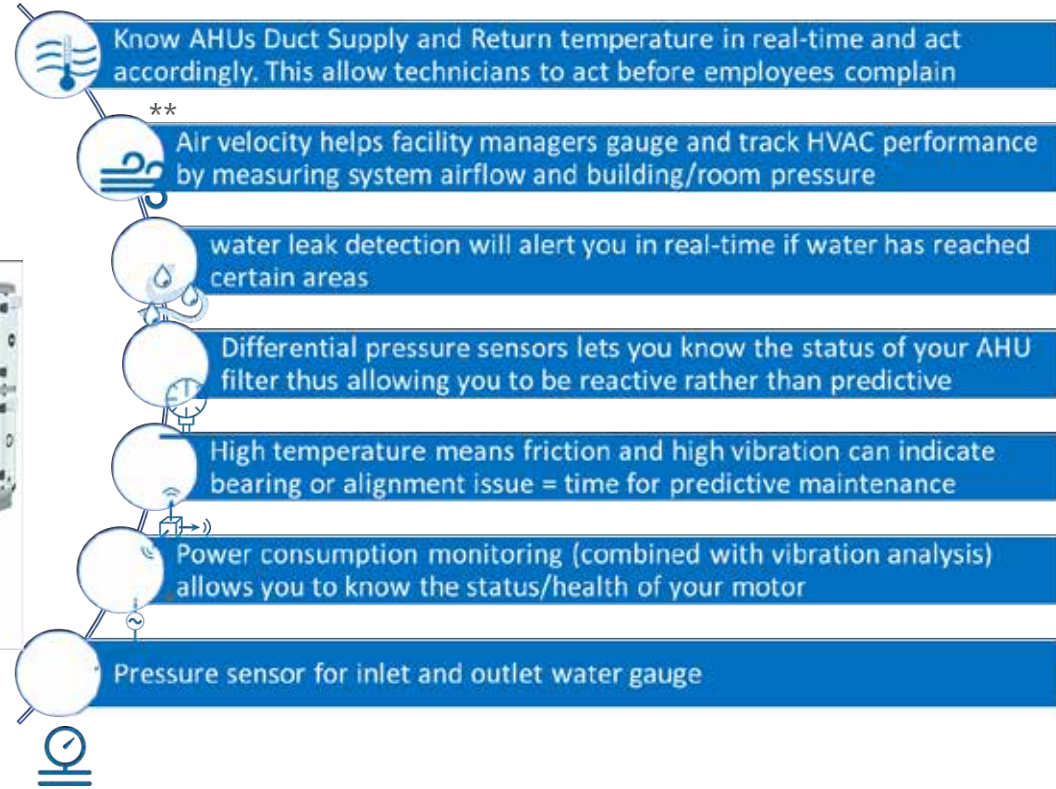
The digital process – Photo Proofs

* Room Temperature and Humidity
(External/weather is optional)



(illustrative image)









* Room Open/Close door status






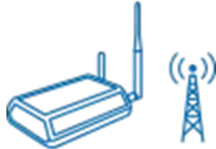

*To be used with other asset

**Not Available in Stock

FRESH AIR HANDLING UNIT – POC PLAN

Sensor Type	How it looks like?	Where it is installed & Method of Installation	POC Qty	Result
 Duct Temperature Sensor		If there is existing entry point to the supply duct we will use it otherwise we need to drill. We will fix the side of the duct by double tape	1	This will return supply or return duct temperature in degree celcius to our online portal
 Water Leak Sensor		Placed inside the water tray of FAHU. The 3 meters rope will detect water anywhere along the rope.	1	Will return 'true' value when water is detected
 Differential pressure sensor		One pipe after filter (we saw existing entry) and other pipe in the same room to take the differential pressure	1	Will return differential pressure value in Pascals before and after filter
 Vibration sensor		Double taped on the motor to detect vibration pattern and temperature	1	Returns vibration frequency (Hz) and velocity (mm/s)

FRESH AIR HANDLING UNIT – POC PLAN (2)

Sensor Type	How it looks like?	Where it is installed & Method of Installation	POC Qty	Result
 Pressure Sensor		Requires T-gauge. The pressure transducer will connect to existing gauge and start measuring pressure (it works on gas and liquid) 	1	This will return supply or return pressure readings in PSI
Gateway Type	How it looks like?	Where it is installed & Method of Installation	POC Qty	Result
 Cellular Gateway		Placed on a flat service in FAHU room or double taped to the wall. One power plug is required. The Cellular gateway includes Data SIM card	1	Will collect information from all sensors wirelessly every 10 minutes. However for triggering events (such as water detect) it is real time. The gateway pushes the data to our cloud based monitoring system.

Electric room











Room Open/Close door status





- 3-Phase Current monitoring (max 500 Amps)
- Voltage meter – up to 500 VAC
- Panel Temperature Sensor
- Room Humidity & Temperature
- Dry Contact Sensor
- * Water Rope - Detection

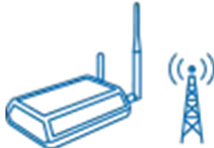

* To be used with other asset

Electric room – POC PLAN

Sensor Type	How it looks like?	Where it is installed & Method of Installation	POC Qty	Result
 3-Phase Current Sensor (Up to 500 Amps)		CT coils to be wrapped around the 3 phase wires.	1	This will return current consumption on Amps. If we manually add the voltage, it will calculate and plot the power in Kilo Watt Hours
 500 VAC Meter		Connected or wired to voltage source, this sensor will measure the voltage	1	Voltage sensor will return value in Volts
 Room Humidity		Placed in the room, the sensor measures ambient humidity and temperature readings	1	Returns humidity value in (%) and temperature value in deg C
 Dry Contact sensor		Wired to a switch, this sensor will be triggered whenever it detects a closed circuit	1	Returns loop closed or opened value. It has another usage with existing smoke detection.

Electric room – POC PLAN (2)

Sensor Type	How it looks like?	Where it is installed & Method of Installation	POC Qty	Result
 Open/Close Sensor		Using magnet detection, open/close door will detect if room door or panel door is left open.	1	This will return open or closed values
 Temperature Sensor		Measures ambient temperature inside the panel	1	Returns panel internal temperature in deg C

Gateway Type	How it looks like?	Where it is installed & Method of Installation	POC Qty	Result
 Cellular Gateway		Placed on a flat surface in FAHU room or double taped to the wall. One power plug is required. The Cellular gateway includes Data SIM card	1	collects data from all sensors every 10 minutes. However for triggering events (such as water detect) it is real time. The gateway pushes the data to our cloud based monitoring system.



Monitoring platform – snapshot(1)

Sensors Landing Page

Quick status indicator:

Green Color means sensor is reporting normal readings

Red Color means sensor is reporting abnormal readings which already triggered an alert

Local Time: 5:09 PM

+ Add Sensor

bmnr Network

Sensor ID	Reading	Time
AC Voltage Detection - 375278	Voltage Present	8 Minutes ago
CO Meter - 492202	0 PPM, 0 TWA-PPM, 21.2° C	38 Minutes ago
Humidity - 499581	34.82% @ 18.9° C D: 3.1° C	3 Minutes ago
Water Area Sensor - 492223	No Water Present	67 Minutes ago

Each rectangle represents a sensor

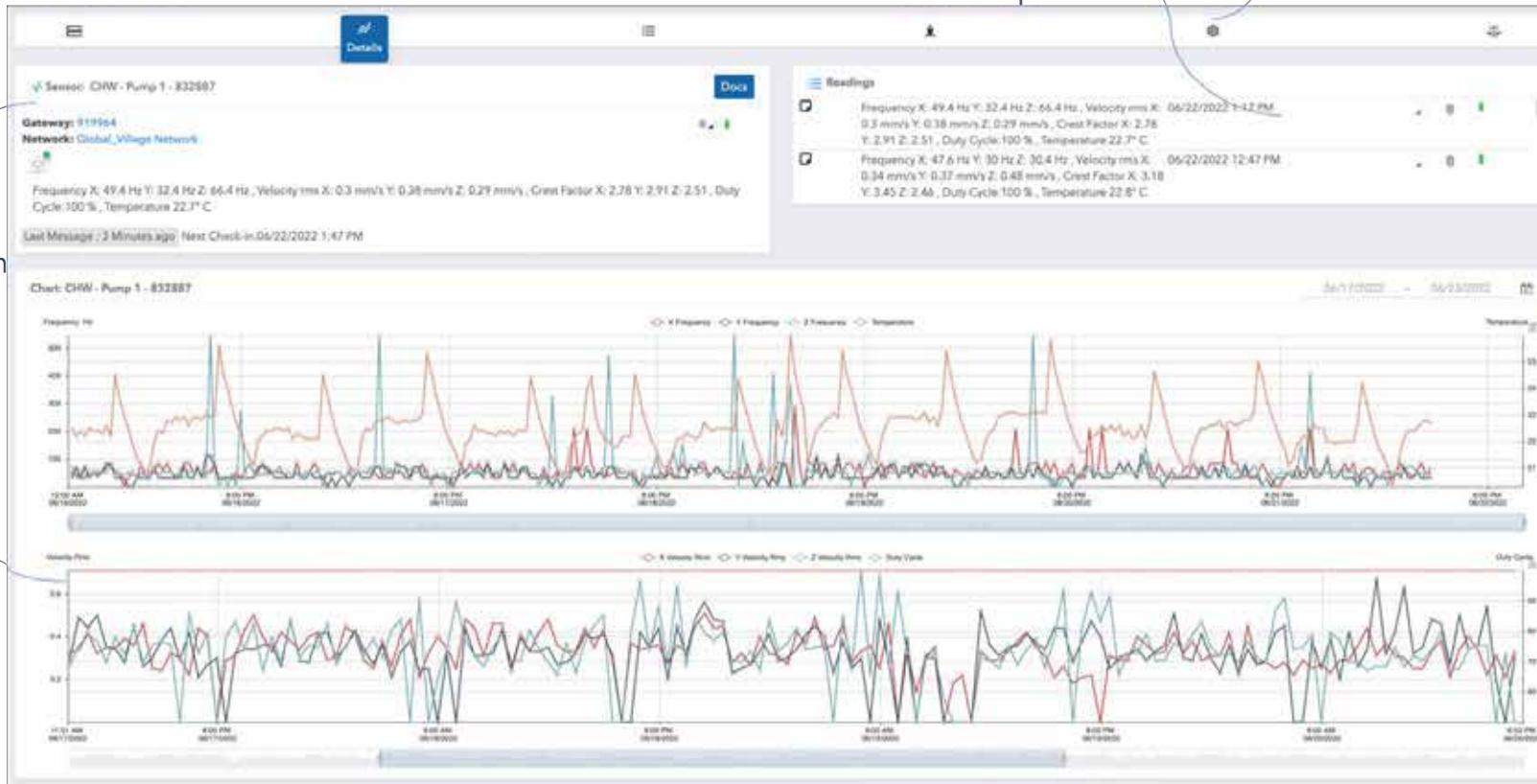
You can see most recent reported readings as well as signal and battery indicators

Monitoring platform – snapshot (2)

Sensor Display Page – Vibration Sensor Data Sample

Sensor Information Such as Name, Last check-in And next Check-in

Vibration Velocity graph



Sensor data in Text format With timestamp

Sensor settings where you can define heartbeat and other parameters

Vibration Frequency and sensor Temperature graph



Monitoring platform – snapshot (3)

Actions Page – you can create unlimited Actions/ Alerts

Create alert based on your desired conditions and receive immediate email/SMS/ or Phone call when a condition or threshold is met



API Page - Available APIs for 3rd party integration



You can call the data through available Rest APIs, or you can push the data to your end-point using data and notification webhooks



Technology & data-driven culture



Digitalization is changing the paradigm of how we engage with the built environment – as users and as its curators. Smart sensing, IoT, AI / ML, web and mobile apps are bringing technology and power of smart analytics to the fore.

The foundational change in culture:

- Data-centricity & continuous improvement as key drivers of strategy
- Quick wins and waste reduction
- Engaging tools to increase competencies
- Better integration
- Data-driven decision making



Technology and data-driven culture – use case



Maximizing energy efficiency without compromise on user satisfaction

- Data from facility operations at analyzed at source to identify operational parameters of system in peak condition (maximum users present in building with harsh weather conditions for example) and therefore at full capacity
- Helps identify patterns to further improve approach to managing, operating and maintaining the building
- Collect data, analyze and make decisions based on fact, enhanced by human FM expertise by reading into trends



Facility MRI concept



Driven by a centralized digital platform
Provides visibility to the health of an entire portfolio of buildings,
much like an MRI is used by doctors to make informed decisions
about a patient



Together we can – drive the future



Integrated

From vision through each step to the FM stage and beyond



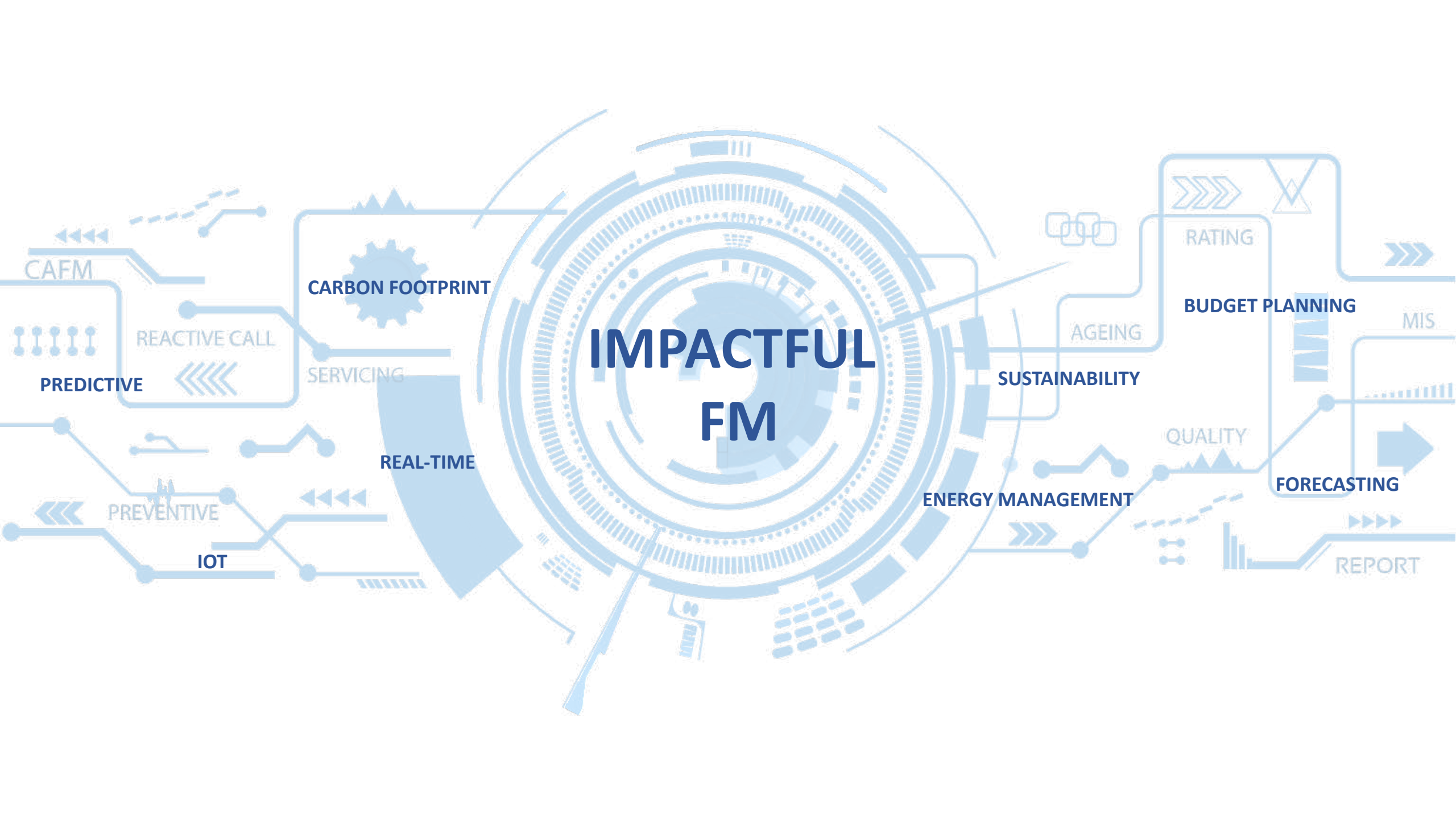
Innovative

Outside the box thought and leadership driving powerful solutions for roadblocks



Comprehensive

Using all tools at our disposal to ensure a sustainable, smart world



Leadership and passion

"It is very important to have a feedback loop, where you're constantly thinking about what you have done and how you could be doing it better."

Elon Musk

The leaders who drive FM are what make it impactful

Leadership with passion

Passion with drive

Drive with result



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OPERATIONS & MAINTENANCE
CONFERENCE IN THE ARAB COUNTRIES

THANK
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