

DBEST IFM Service Introduction

WHO we are...
WHAT we Deliver...
WHY we are different...
WHAT's our value...

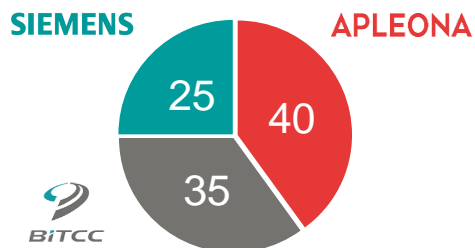
Realising Potential.



/WHO we are...

DBEST Facility Technology Management

FOUNDATION



Foundation:	March 2014
Sales Volume:	100 mio. RMB
Employee:	> 200
Projects:	40
Managed area:	800,000 m²

FOOT PRINT

Yantai
Shenyang
Baotou
Zibo
Tianjin
Qingdao
Wuhu
Tangshan
Xi'an
Beijing
Shanghai
Hefei
Changchun
Suzhou
Chengdu
Wuxi
Nantong
Guiyang

CLIENT POOL



WHO we are...

APLEONA is Europe's leading Facility Manager & Real Estate provider



€2,5 billion revenue



22,500 employees



37 countries



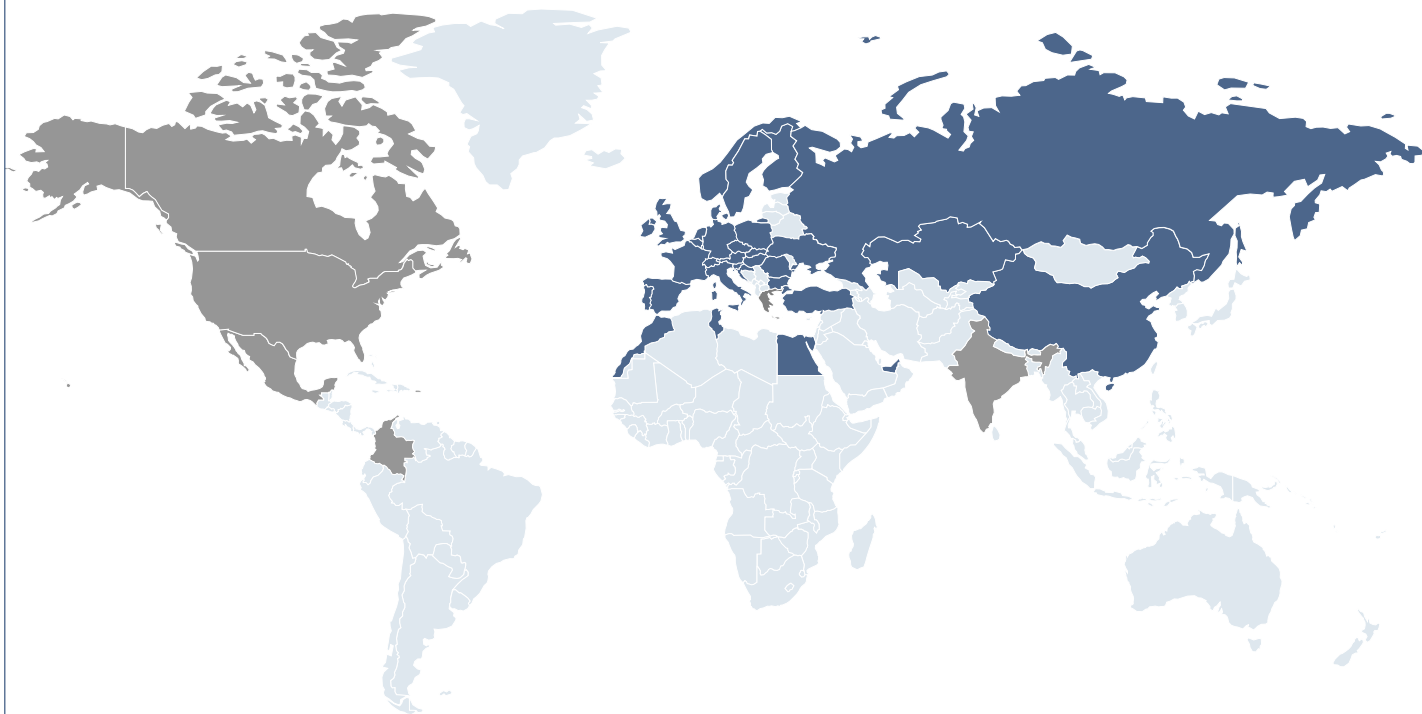
Properties under
management:
6,710



Strong market position in
Europe's largest markets
Germany and the UK



Market leader facility
management (FM)



■ Countries with APLEONA entities

■ Partnership countries



/WHAT we deliver...

Integrated FM solution

The **ONLY** interface of all FM topics to support our client focusing on their core business

Integrated HSEQ Management

Quality and EHS management incl. risk assessment, SOPs, maintenance and construction work safety control

Technical maintenance

German VDMA standard based technical maintenance of all building related facilities

- HVAC system, ELT system, Firefighting system, Elevators etc.

Projects management in FM scope

GC and PM service for all projects:

- Renovation projects
- Repair and system upgrade
- Innovative technology

3rd-party management

Coordinate all FM related third-party contracts on site

- Service quality control incl. KPI evaluation
- Onsite EHS controlling



Energy management

Energy Metering and Monitoring
Energy performance analysis

Cleaning & Security

Room book model based cleaning service
Staff training in housekeeping way

Conferencing & Reception

Conference room/center daily operation
Entrance reception and visitor management

Other soft services

In- and outdoor landscaping
Move and furniture management
Waste management
Mailroom service
etc.

Location: Jinshan district, Shanghai

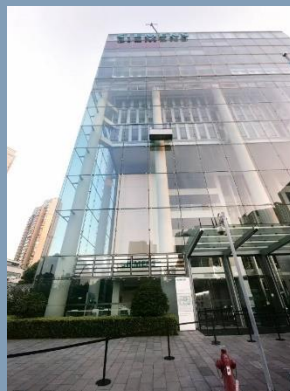


Schreiner New Factory

Background: Schreiner planned to move to a new factory site from Fenxian district to Jinshan district, Shanghai, in order to enhance the production area. DBEST provided project management consulting for the whole construction work, including HVAC, electricity supply, water supply & drainage etc.

Heat isolation film for Siemens campus

Background: Siemens Center Shanghai front hall suffered from the high temperature during summer days, due to large area of glass facade. Under DBEST suggested solution, heat isolation films were applied on the glass façade of front hall. The whole project was under DBEST project management ranging from design to construction, which ensured safety and high quality to the whole project process, even though huge amount of work was on height. The effect of heat isolation film was tested and proved after the project.



Energy saving & Decarbonization



Energy analysis consulting

- DBEST specialist delivery
- Project reference: Siemens campus, FedEx, Schreiner



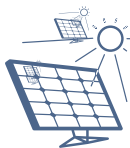
Energy management system

- Energy consumption data analysis
- Optimization strategy
- Project reference: Siemens campus



Air & water supply balance

- Conditioning water balance
- Conditioning air balance



Energy conservation technology

- Solar PV
- IFD filter
- 3D heat pipe
- CCHP
- Ice-storage cooling



LEED & WELL certification

- LEED certification consulting
- WELL certification consulting



Energy analysis consulting

Potable water management – water usage reduction via low flow high-efficiency faucet, toilets fitted with dual flush etc.

Energy management system – achieve energy management and analysis, in order for waste point investigation and optimal strategy decision.

LED Lighting - replacement of existing lighting to more efficient and better lit LED alternatives with a longer lifecycle.

Solar PV - used to generate on-site renewable electricity, in order for carbon reduction and energy consumption cost saving.

Electric Vehicle Charging Points provide stations to charge electric vehicles, which reduces the carbon footprint of fleet vehicles as an alternative to fossil fuels.

HVAC (heating, ventilation and air conditioning) - systems represent a substantial proportion of buildings' energy usage, so we optimize the system to achieve the right environment with maximum efficiency.

Examples: IFD electrostatic filter, 3D heat pipe, air & water supply balance

Water recycle strategy - portable water resource saving by water recycle strategy

Examples: grey water system, rain water collection

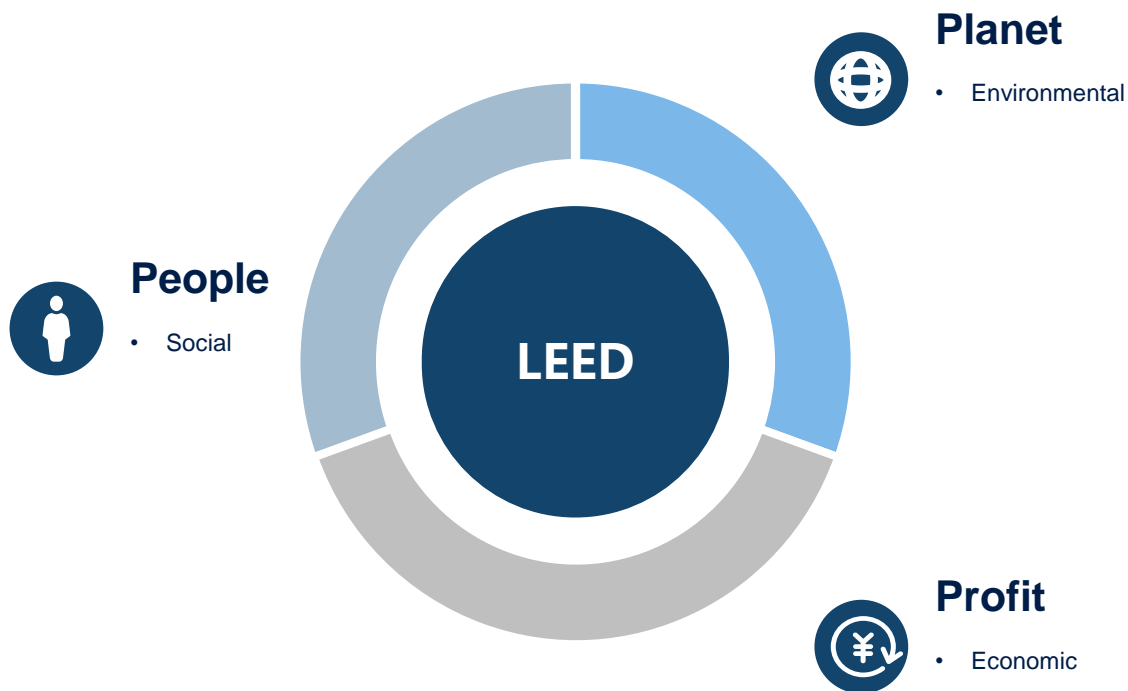
Facility operation strategy – facility operation based on demand, achieve optimization of building operation strategy.

Example: HVAC system control strategy optimization by BMS system.



WHAT we deliver...

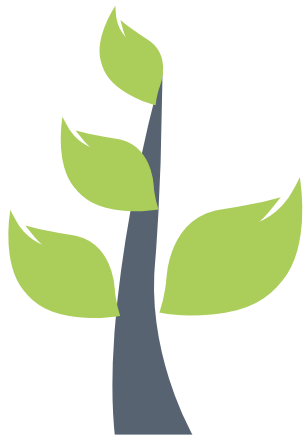
LEED certification consulting



Carbon consulting service

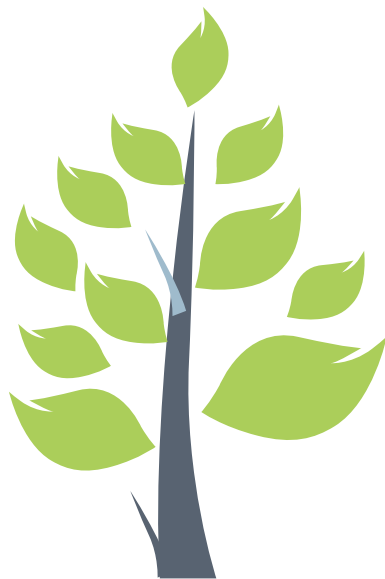
ESG Disclosure & Communication

- ESG report consulting
- Environmental information Disclosure consulting for financial Institutions
- Environmental disclosure report for industrial companies



Zero Carbon Campus Solution

- Dual carbon planning, solution and design for the campus
- Campus carbon management information system
- Carbon Neutral consulting



Carbon Asset Development & Management

- CCER value assessment
- CCER development and investment management consulting
- CCER development technology consulting



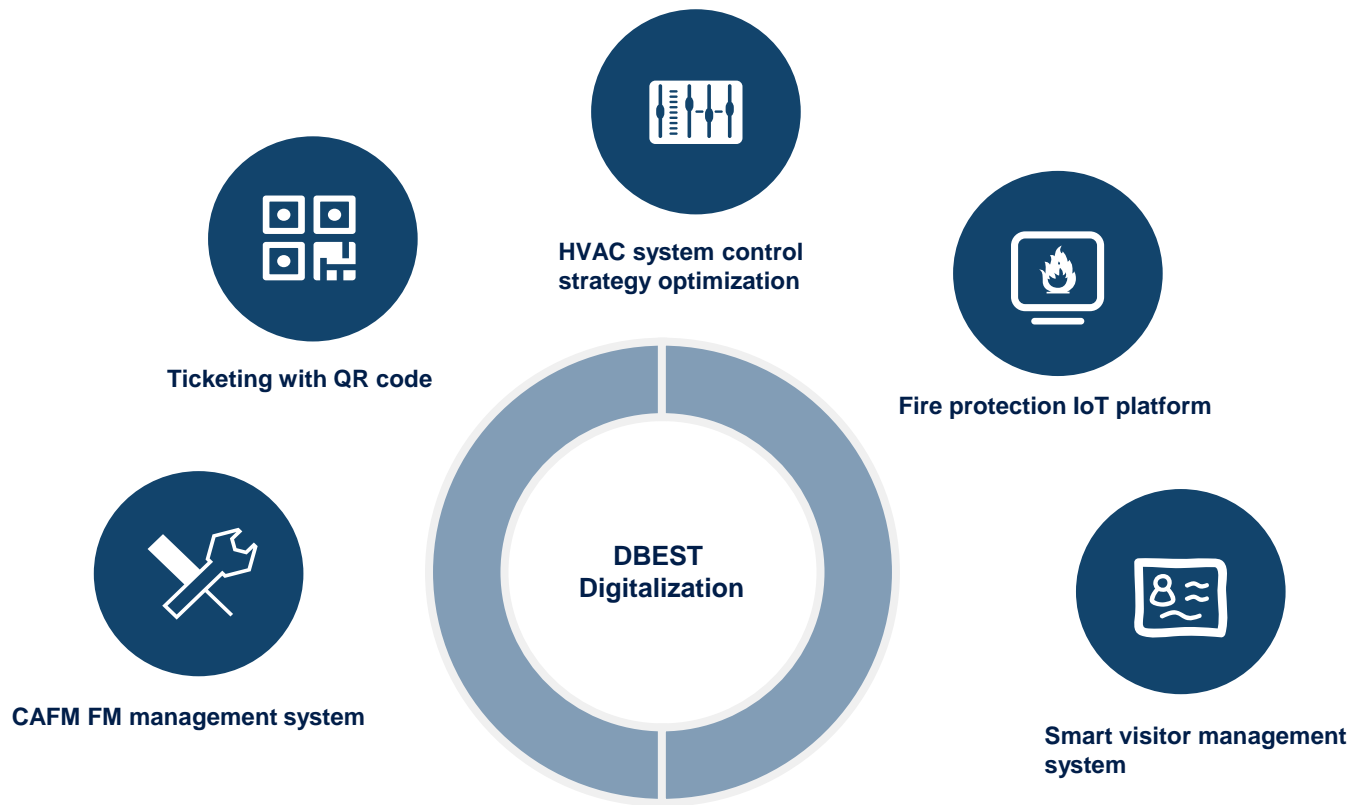
Carbon reduction solutions for emission-controlled enterprises

- Compliance consulting & Managing carbon reduction consulting (Carbon Housekeeper)
- Technical carbon reduction consulting for emission control companies



WHAT we deliver...

Digitalization service



CAFM FM management system

Asset Management



- Asset information
- Asset status
- Asset maintenance and repair protocol

Round Walking

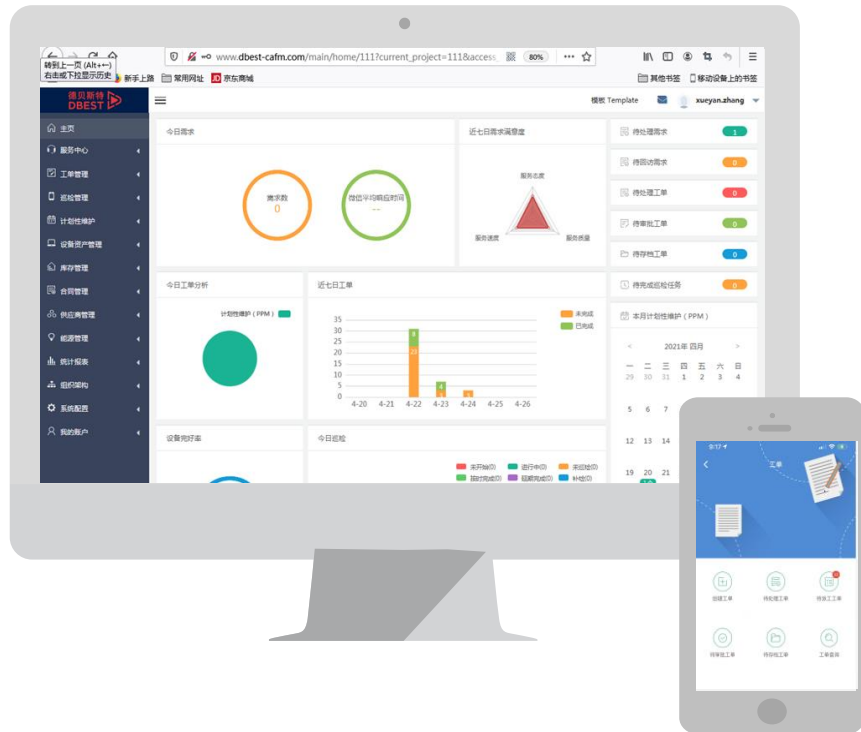


- Space & asset
- Time and period
- Round walking protocol
- Round walking work order track

Planned Maintenance



- Space & asset
- Maintenance calendar
- Regularity setting
- Maintenance work order
- Maintenance work order tracking



Request Response

- Request work order set up
- Work order type & priority & SLA definition
- Work order track



Warehouse Management

- Material management & inventory
- Material limit remind
- Material ordering
- Operation protocol query



Subcontractor Management

- Subcontractor information
- Contract expire date remind

Ticketing data collection and analysis for better experience

Analyzing



Work order count analysis



Key word analysis

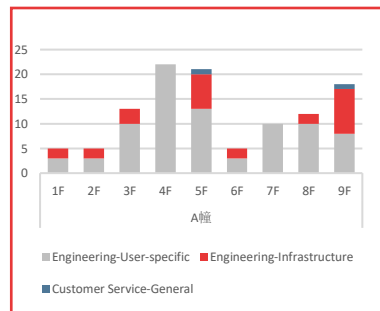
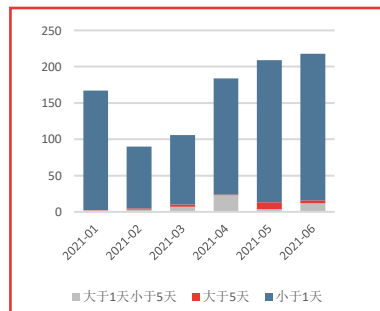
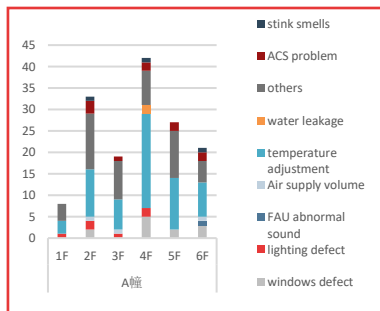
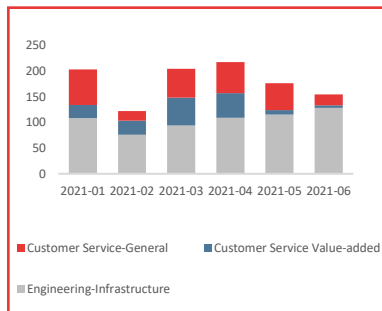


Process time analysis



Work order location

Data
visualization



Findings
and actions

Overview of daily operation and facility condition

Identification of main concerns of end-user

Evaluation of work efficiency and service response time

Identification of specific location for service improvement

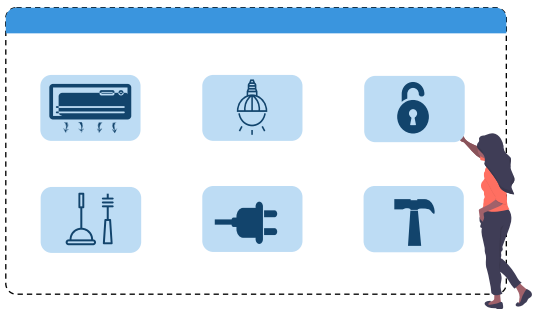
WHAT we deliver...

Ticketing with QR code

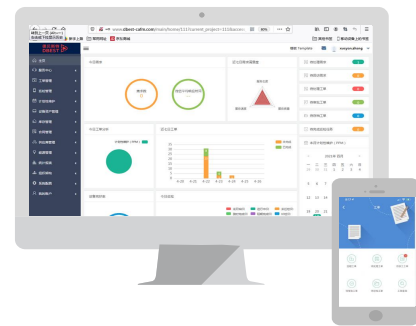
德贝斯特
DBEST



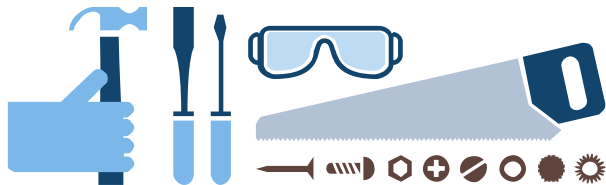
Scan Position QR code via Wechat or APP



"Top 10" choice based on data analysis



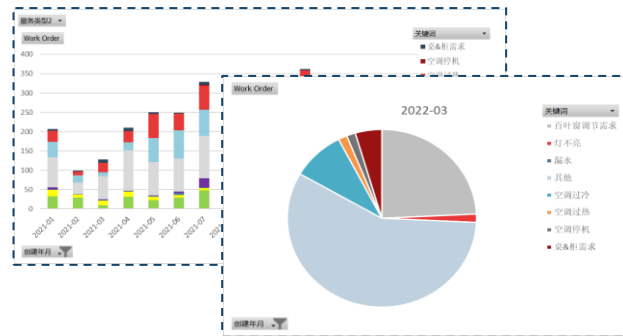
Ticketing get into CAFM
Work order generation



Work order processed by DBEST



Work order processed by DBEST



Ticketing information data analysis
Strategy of operation improvement

How we manage our services

Integrated management system according to ISO9001/14001/45001, certificated by TÜV Süd



QUALITY

- Implementation of structure / process / organization, coaching of project managers: project planning, development operation documentation etc.
- Start-up Review ½ year after Start-up
- HSEQ-Audits: Contract fulfillment, PDCA, compliance, regulatory and statutory requirements, etc.

ENVIRONMENT

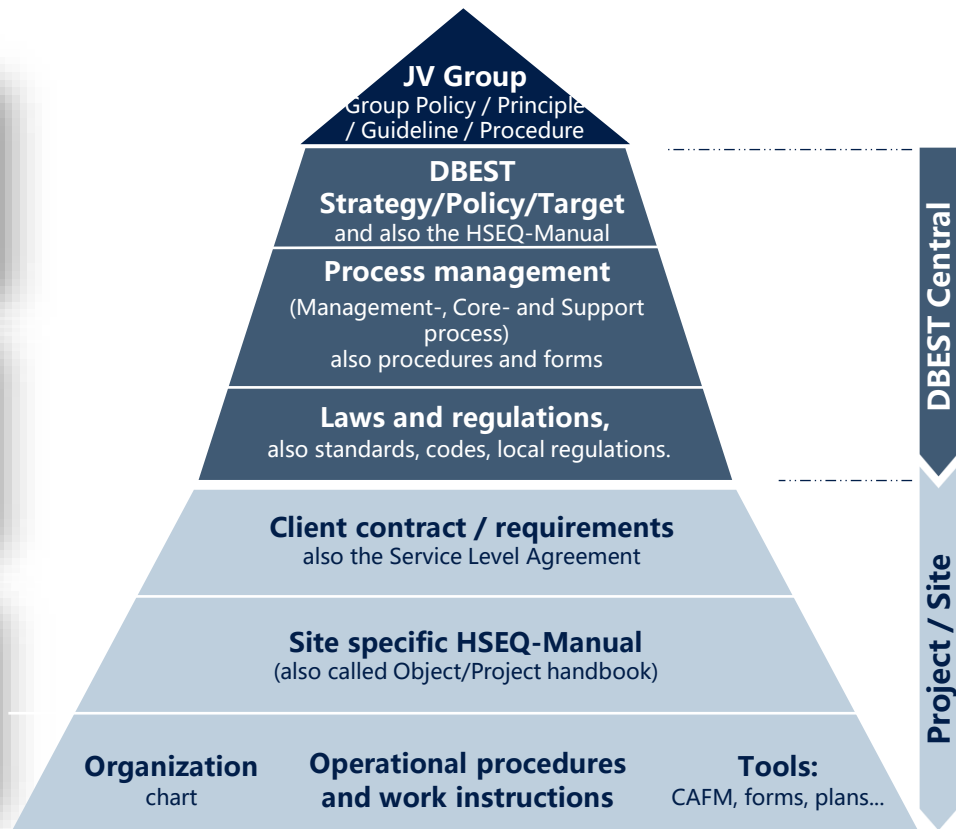
- Avoiding negative environmental impacts
- Integration of project-related environmental concepts
- Development of disposal concepts etc.
- Analysis of environmental indicators (PM2.5, etc.)

SAFETY

- Risk assessment and safety inspections
- Work Safety Committee sessions for information sharing and analysis
- Instruction based on the operation manual
- Accident analysis

HEALTH

- Regular health check for employees
- Regular onsite EHS inspection by EHS officers
- Caring for the health of employees
Ensuring first aid on site, PPE, etc.



We use audit tool to make sure our system works



Site audits

- ≡ Auditing operational performance onsite
- ≡ Yearly executed by HSEQ-representative from regional HSEQ team

Start-up reviews

- ≡ Auditing the performance after the start-up phase and during the operation of selected sites/projects.

Internal audits

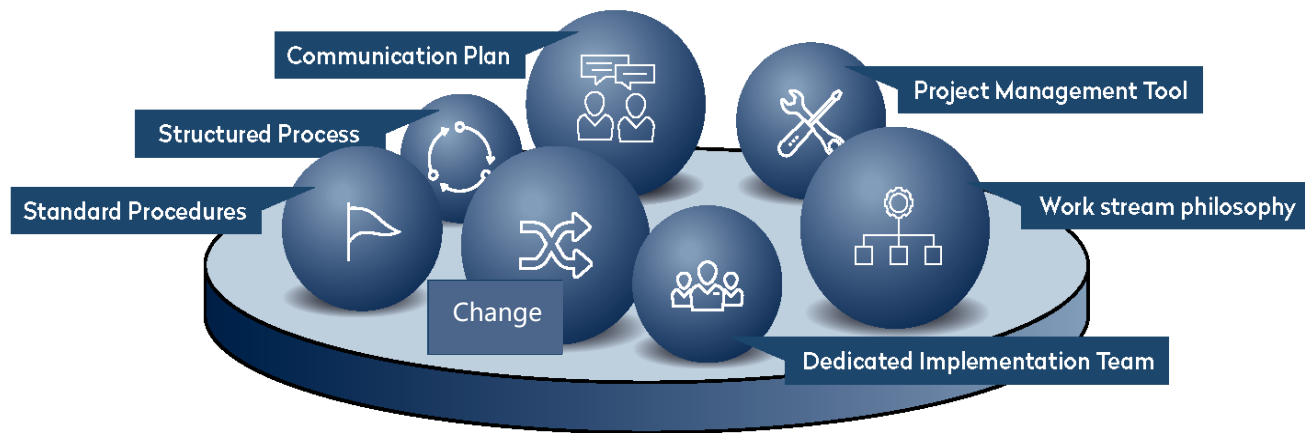
- ≡ Executed by the central HSEQ department
- ≡ Approx. 6 months after go live of operation
- ≡ Executed by the central HSEQ department
- ≡ Yearly according to audit program
- ≡ Integrated audits ISO 9001, 14001, 45001



Emergency plans	
火情报警预案及流程	Fire alarm plan and process
大型活动应急响应预案及流程	Emergency plan and process for large-scale events
办公区暴力行为应急预案	Emergency plan for violence in office areas
停电事故应急处理标准及流程	Emergency standards and process for blackout accidents
触电事故处理应急标准及流程	Emergency standards and process for electric shock accidents
电梯困人应急处理标准及流程	Emergency standards and process for elevator-trapped
监控系统报警处置及流程	Alarm disposal and process of monitoring system
门禁系统报警应急处置及流程	Emergency disposal and process of access control system alarm
急症病人应急处理标准及流程	Handling standards and process for emergency patients
地震应急预案及流程	Earthquake emergency plan and process
防洪、防漏应急预案	Emergency plan for flood and leakage control
防台风、暴雨应急预案	Typhoon and storm emergency plan
防治传染病应急预案	Prevention and treatment of infectious diseases

Our processes can be used for small and large-scale transitions

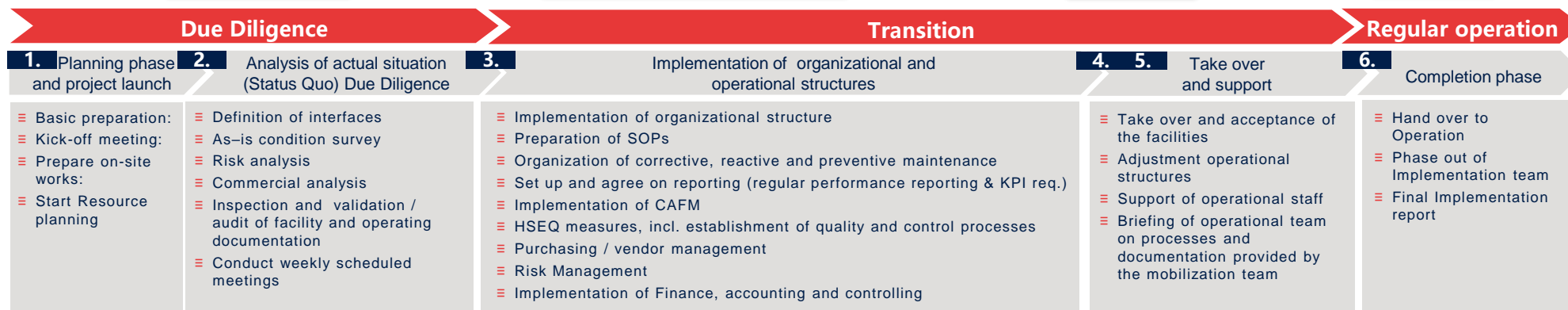
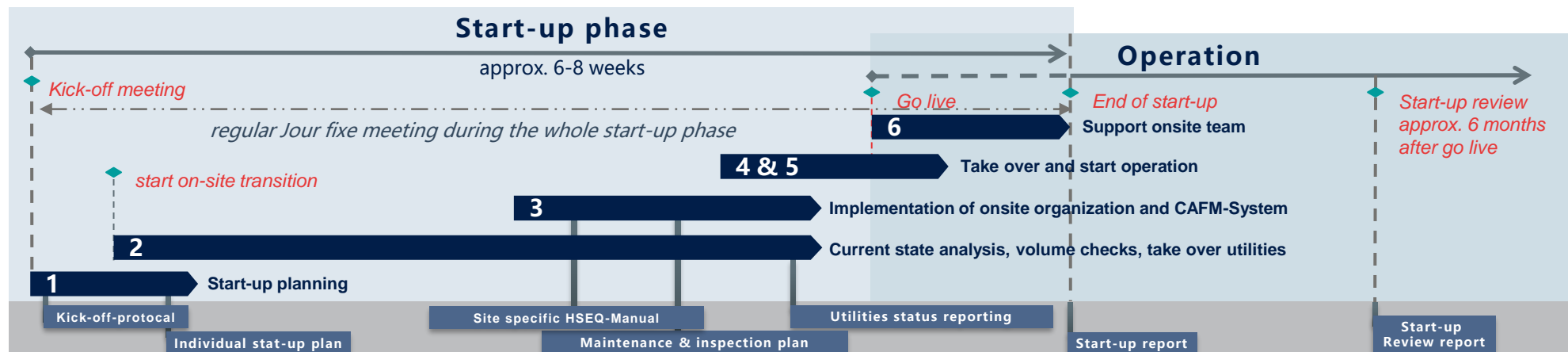
Implementation as a scalable Platform



Our view of the Implementation

- Project organization
- Project tools & templates
- Project execution
- KPI & Reporting
- Governance structure and Communication plan
- Set-up DBEST directives and Standard procedures
- Make people, partner, processes and systems ready for the operational phase

FM specialized Transition/start-up management



“

We utilize different tools to ensure process

Microsoft Project

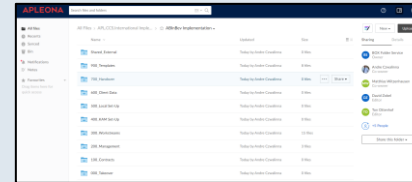
For Project planning, scheduling and reporting



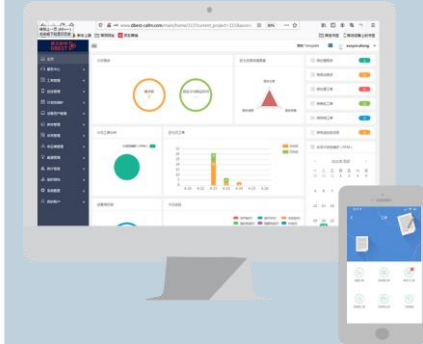
Templates

Workstream	Template	
Operations	Service Delivery Plan	Service Delivery Plan
	Asset List	Asset List
	Project Handbook	Project Handbook
	Site visit template	Site visit template
	Operational Readiness Plan	Operational Readiness Plan
IT	Handover Protocol H (Data)	Handover Protocol H (Data)
	IT Checklist	IT Checklist
Business Support	RPI Calculation Sheet	RPI Calculation Sheet
	PSP Manual	PSP Manual
HSEQ	Environmental Site Check	Environmental Site Check
	Due Diligence HSEQ Checklist	Due Diligence HSEQ Checklist
HR	Contractor Safety Information	Contractor Safety Information
	Employee List	Employee List
Finance	HR Data	HR Data
	Implementation Budget and Tracking	Implementation Budget and Tracking
	Reconciliation Invoicing tool	Reconciliation Invoicing tool
	Change Request Log	Change Request Log
Procurement	Target cost vs Operational cost	Target cost vs Operational cost
	Business Case/Use P&L	Business Case/Use P&L
Baseline	BAAI	BAAI
	Supplier Matrix	Supplier Matrix
General	Baseline Validation Tool	Baseline Validation Tool
	Day 1 Planning	Day 1 Planning
Handover Protocol H (BO to KCC)	Handover Protocol H (BO to KCC)	Handover Protocol H (BO to KCC)
	Handover Protocol H (KCC to KAM)	Handover Protocol H (KCC to KAM)
SOP-II	SOP-II	SOP-II
	SOP-II	SOP-II

Cloud storage for files (BOX Drive)



CAFM





/WHY we are different...

WHY we are different...

DEBST rich know-how & service experience



High-level international customer service experience By self & parent company

Manufacturer



Logistics



Pharmaceutical Industry



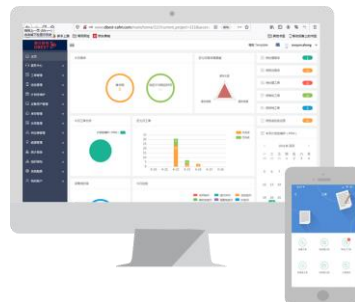
Retailer



Embassy



Solid experience in digitalization



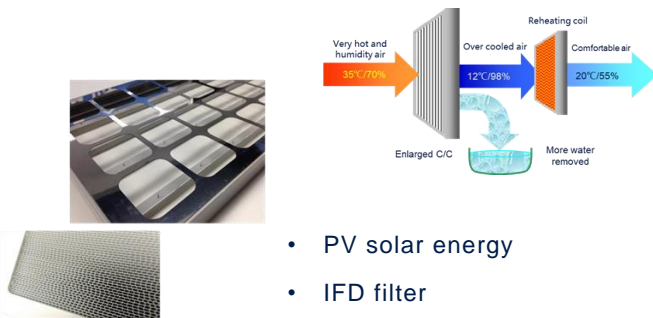
- CAFM integrated in daily FM operation
- Campus ticketing by QR code scanning
- Energy management system
- Operation optimization by BA system

Green building consultancy capability



- LEED certification
- WELL certification
- Carbon tracking by RESET methodology

Solid experience in decarbonization technology & application



- PV solar energy
- IFD filter
- 3-D heat pipe
-

Our core competence – German standard technical maintenance

For DBEST, as an engineering company, our hard services solutions represent our core competencies

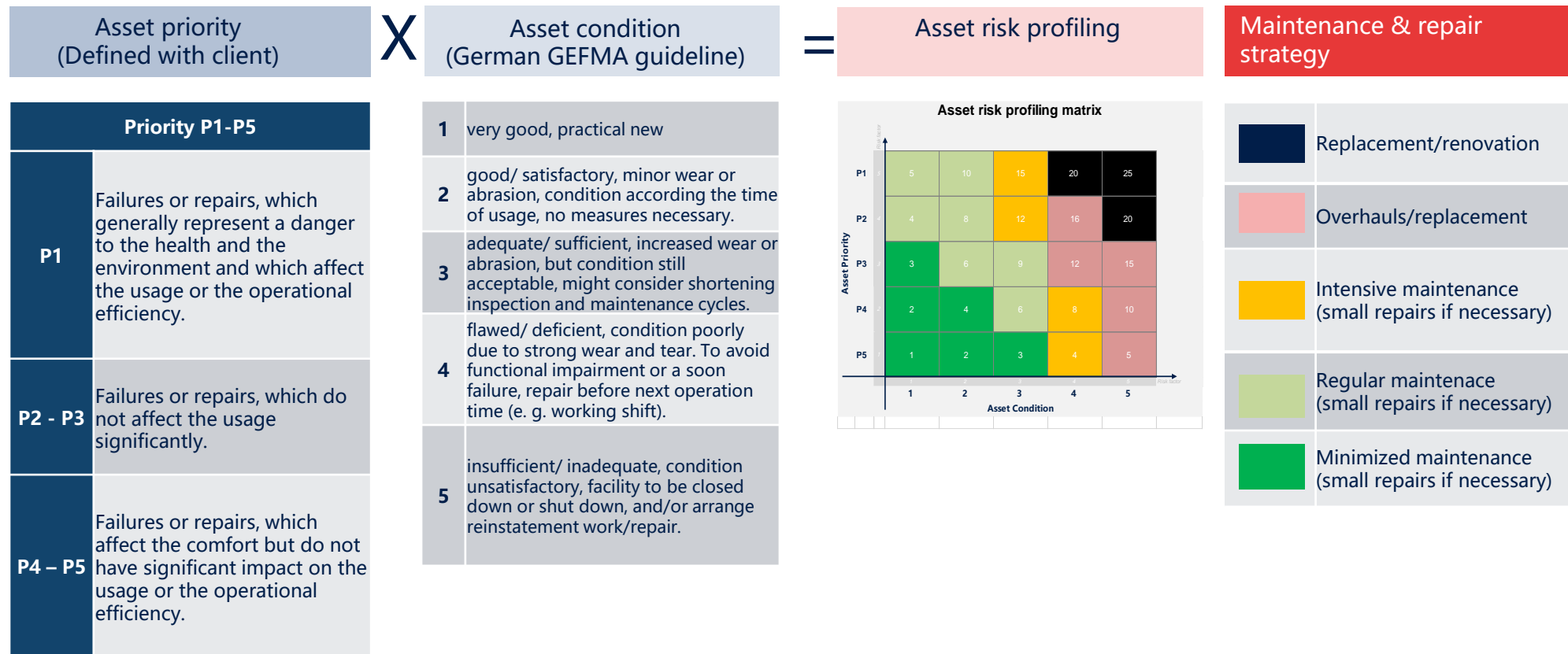
With our hard services solutions we contribute to cost reductions, we secure the uninterrupted operation of the core business, retain the value of properties and support you, as owner or tenant in your business processes.

- ≡ Preventive maintenance and inspection (based on German standards VDMA 24176 for inspections and VDMA 24186 for maintenance)
- ≡ Reactive maintenance and repairs
- ≡ Operational management
- ≡ Breakdown and emergency services
- ≡ Conversion / rehabilitation
- ≡ Construction coordination and management
- ≡ Minor- and capital projects management
- ≡ Energy management
- ≡ Disposal

					Preventive maintenance	Corrective maintenance
Annually/every 2 years					3rd Party Maintenance	3rd Party Tests
<ul style="list-style-type: none"> • Technical Due Diligence • Internal Audit Programm 					<ul style="list-style-type: none"> • Generator • Firefighting system • UPS • Elevator • Generator Load Test 	<ul style="list-style-type: none"> • ELT annual test • Elevator test • Firefighting test • ...
Bi-annually/quarterly					3rd Party Inspection/Maintenance	Subcontracted corrective maintenance/ small projects
Quarterly maintenance based on German VDMA <ul style="list-style-type: none"> • Cleaning • Lubricate • Filter Exchanging • Adjustment 					<ul style="list-style-type: none"> • Generator • Firefighting system • UPS • Elevator • ... 	
Monthly					Critical Equipment Maintenance	
Monthly maintenance based on German VDMA <ul style="list-style-type: none"> • Visual Inspection • Check for Operation • Adjustment • Function test for technical asset • Energy meter reading 					<ul style="list-style-type: none"> • Firefighting system • UPS/Generator • Elevator • ... 	<ul style="list-style-type: none"> • Repair • Renovation • Replacement
Daily/Weekly					Daily minor repair	
Facility Roundwalk Inspection Meter Reading for Technical Facility Handyman Round check Indoor comfort monitoring High voltage room Day/night shift						

Self-delivery
 3-rd party subcontracting
 Legal test

German approach of customized maintenance strategy

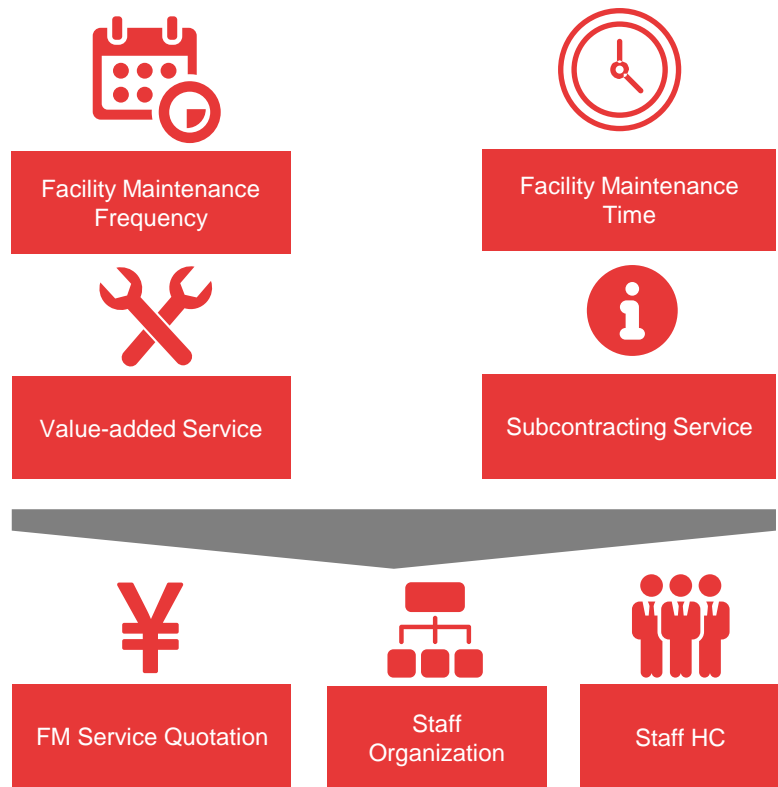


Quotation Model Based on German Type

Traditional Quotation Model



New Quotation Model based on German Type



WHY we are different...

Quotation Model Based on German Type



Submission sheet data		Long text		Units		Excluded		Maintenance & Inspection										Annual Time	
No.	Position	Description	Long text	No.	Units	Excluded		每日 Daily	每周 Weekly	每月 Monthly	每季度 Quarterly	每年 Annually	每年 Annually	每年 Annually	每年 Annually	每年 Annually	每年 Annually	Annual Time	Annual Time
								consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	Consumption per Asset	Consumption per Asset
TOTAL								9,800.0	3,058.7	634.0	1,535.3	1,363.1							
1	3	Technical maintenance and inspection																	
2	3.1	DN 300 建筑给排水 Building construction																	
300.330.332	300.330.332	本建筑 Water floor	Brand: Type 500/720/1000	242.0	pos.														
300.330.332	300.330.332	右后侧地面 stone ground	Brand: Type 500/720/1000	1.0	pos.														
300.330.332	300.330.332	单侧白线 Single steel white glass	Brand: Type 500/720/1000	504.0	pos.														
300.330.332	300.330.332	左侧双钢Low-E Double steel Low-E	Brand: Type 500/720/1000	195.0	pos.														
300.330.332	300.330.332	右侧双钢Low-E Double steel Low-E	Brand: Type 500/720/1000	28.0	pos.														
300.330.332	300.330.332	中间双钢Low-E Double steel Low-E	Brand: Type 500/720/1000	560.0	pos.														
300.330.332	300.330.332	单侧白线 Single steel white glass	Brand: Type 500/720/1000	510.0	pos.														
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300.330.332	300.330.332	单侧白线 Single steel white glass	Brand: Type 500/720/1000	42.0	pos.														

Submission sheet data		Long text		Units		Excluded		Maintenance & Inspection										Annual Time	
No.	Position	Description	Long text	No.	Units	Excluded		每日 Daily	每周 Weekly	每月 Monthly	每季度 Quarterly	每年 Annually	每年 Annually	每年 Annually	每年 Annually	每年 Annually	每年 Annually	Annual Time	Annual Time
								consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	consumption per item (min)	Consumption per Asset	Consumption per Asset
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300.330.332	300.330.332	单侧白线 Single steel white glass	Brand: Type 500/720/1000	42.0	pos.														

- Facility maintenance time
- Facility maintenance frequency

Data and customer satisfaction driven KPIs



Downtime for technical facilities

Maximum permissible individual downtime per facility



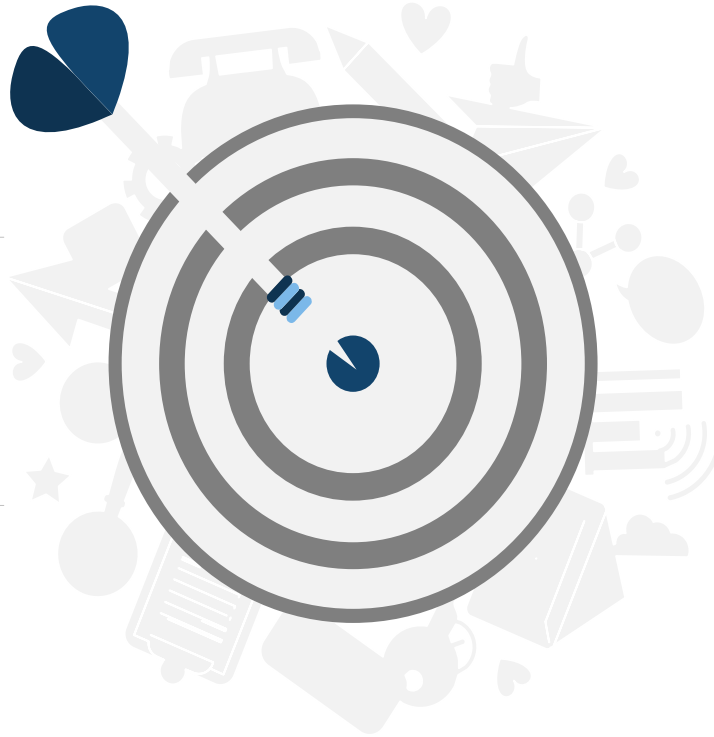
Ticket processing periods

Average time span between a message arriving at the help desk and completion being acknowledged in days



Availability of technical facilities

Maximum permissible number of individual failures per year and per facility



Health & safety compliance

Ratio of the total points score for criteria 1-5 to the maximum total rated score of 4 points.



Reporting

Ensure data are correct and timely updated to create the monthly and quarterly reports.



Organizational continuity

Sum of all order unit positions not filled compared with the defined organization structure.



WHY we are different...

We are focusing on Saving and Innovation



Support from
German
Headquarte
r Apleona
---Regular
Workshops



WHY we are different...

We help client in energy consulting



Current state analysis

- Current energy consumption
- Current pain point analysis



Future state prediction

- Energy saving & carbon reduction potential prediction



Strategy

- Operation optimization
- Innovative technology solution



Financial analysis

- Investment analysis
- ROI analysis



Implementation

- Solution design
- Solution implementation



Effect tracking

- Solution effect tracking
- Continuous improvement

We help client to improve energy performance

Energy efficiency improvement			
	Organizational Measures	Technical Measures	Personnel Awareness
Measures	<ul style="list-style-type: none">≡ Operation schedule optimization≡ Space management optimization≡ Utilization energy based on need	<ul style="list-style-type: none">≡ Utilize innovative technology≡ Eliminate energy wasting factors≡ Utilize natural resource	<ul style="list-style-type: none">≡ Personnel training≡ Poster campaign
Example	<ul style="list-style-type: none">• One central space for all over-time employees• Optimization of operating schedule• Lighting & HVAC fine adjustment• Shut down lighting, HVAC in vacant space•	<ul style="list-style-type: none">• IFD electronic filter• Outdoor lighting environment sensor• Glass façade heat isolation film• PM2.5 sensor in AHU piping to control PM2.5 machines•	<ul style="list-style-type: none">• Onsite personnel training• Poster for energy saving• Set energy consumption limit for subcontractor•

References



Siemens Beijing Center

Total 53 improvement suggestions

Lighting: 17

Heating & Cooling: 16

Ventilation: 16

Other: 4



Siemens Shanghai Center

Total 42 improvement suggestions

Lighting: 11

Heating & Cooling: 13

Ventilation: 8

Other: 10



/WHAT's our value...

We want to be part of client's value chain

Property value

Ensure the functionality and availability of technical and building structural facilities, to maximize the property value

Digitalization & Innovation

CAFM system
Fully support from Apleona innovations' team

"Zero harm" policy

Support the implementation of client's EHS strategy and maintaining the ISO 9001/14001/45001 systems

Cost Savings

Promised savings' target via

- improving work efficiency
- innovative technical solutions

Client satisfaction

Proactive engagement
Quick response time
Continuous improvement

Lease-out support

Support client for move-in of tenants Support process improvement



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