



Servus! Wir sind **DBEST**



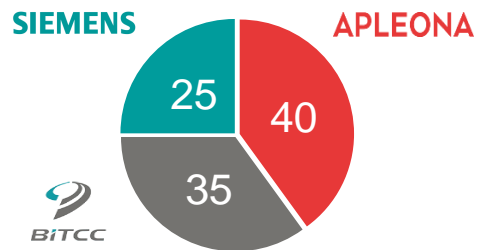
Realising Potential.

Three partners, one joint vision



An APLEONA JV Company

FOUNDATION



Foundation: March 2014

Core Staff: > 300

FOOT PRINT



IFM CLIENT POOL



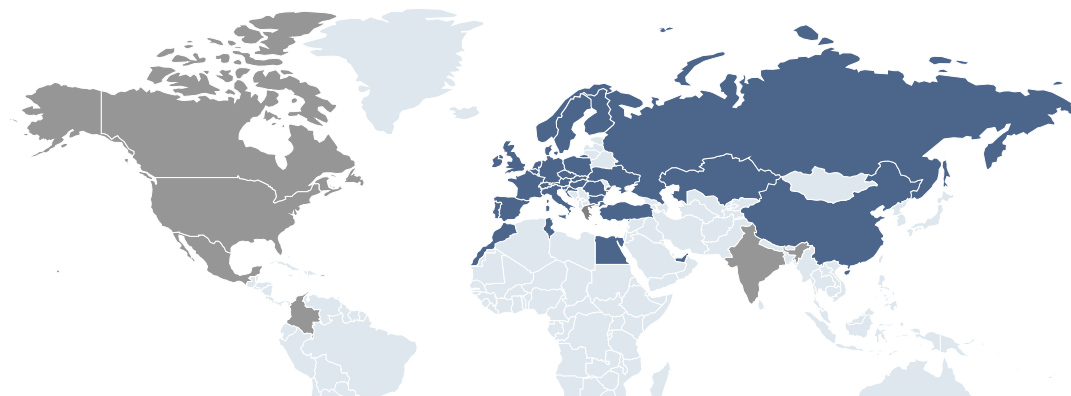
APLEONA is Europe's leading Facility Manager & Real Estate provider



An APLEONA JV Company

■ Countries with APLEONA entities

■ Partnership countries



€4 billion revenue



40,000 employees



40 countries



Properties under management: 10,000



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



Market leader facility management (FM)

<p>Apleona announced the acquisition of a leading German facilities management company, Gegenbauer Group, on March 6, 2023.</p>	<p>Poland Sep 2022</p> <p>FM Solutions ("FMS")</p>	<p>United Kingdom Mar 2022</p> <p>Siemens Gebäudemanagement & -Services ("SGS")</p>	<p>Ireland Oct 2022</p> <p>Acacia</p>	<p>Austria Mar 2022</p> <p>Siemens Gebäudemanagement & -Services ("SGS")</p>
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Facility Management

- Integrated facility strategies and concepts
- Technical FM
- Industrial services
- FM consulting
- Integrated soft services
- FM in sensitive sectors
- Energy management

Building Technology

- Design, project planning and construction of building service systems
- HVAC
- Innovation energy concepts
- Service concepts for servicing and maintenance of technical facilities

Interior Fitout

- General contractor for complete fitout solutions
- Tenant fitout
- Renovations
- Manufacturer-independent, own product and system solutions
- Fireproofing solutions

Real Estate Management

- Property management
- Retail & center management
- Asset management
- Lease management
- Fund & portfolio management
- Building advisory
- Project management

Integrated FM solution

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.

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

Projects management in & out of FM scope

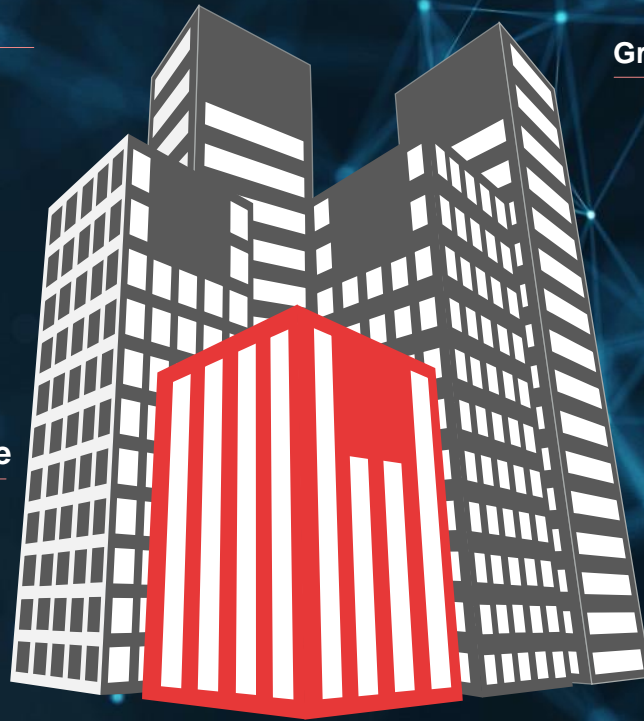
GC and PM service for all projects:

- 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
Energy data analysis

Green building & decarbonization consulting & PM

Energy analysis consulting
LEED & WELL & Green building certification consulting
Energy conservation technology (e.g. solar PV)
Carbon consulting (e.g. ESG communication, Zero Carbon Campus)

Digitalization consulting & PM

Energy management system
CAFM system
IoT system

Workplace planning/leasing & Real estate

Lease administration service
Workplace planning
Real estate brokerage service

Other services

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



Siemens Center Beijing

Site: Beijing

Building type: office campus

Building certification: LEED

Service scope: IFM service including

- Technical service
- Cleaning service
- Reception service
- Conference service
- Outdoor greenery service
- Energy saving consulting service



Siemens Center Shanghai

Site: Shanghai

Building type: office campus

Building certification: LEED

Service scope: IFM service including

- Technical service
- Cleaning service
- Reception service
- Conference service
- Energy saving consulting service



German Centre

Site: Shanghai

Building type: office, retailer stores, hotel apartment, kindergarten, gym

Service scope: IFM service including

- Technical service
- Reception service
- Conference service
- Cleaning service
- Greenery service
- Security service



Norwegian Embassy

Site: Beijing

Building type: Embassy

Service scope: IFM service including

- technical service
- Cleaning service
- Indoor plant service



Siemens Manufacturing Engineering Center

Site: Shanghai

Building type: manufacturing plant

Service scope: IFM service including

- Technical service
- Cleaning service
- Canteen management
- Shuttle bus management

Project Reference



Siemens Gamesa Tianjin

Site: Tianjin

Building type: manufacturing plant

Service scope: IFM service including

- technical service
- cleaning service
- greenery service
- pest control
- shuttle bus management
- canteen management
- energy saving consulting service

Siemens Gamesa Shanghai Lingang

Site: Shanghai

Building type: manufacturing plant

Service scope: IFM service including

- technical service
- cleaning service
- greenery service
- pest control
- canteen management
- energy saving consulting service

Schreiner Group

Site: Shanghai

Building type: manufacturing plant

Service scope:

- Technical service
- Project management of MEP construction by plant relocation

Beijing Siemens Cerberus Electronics Ltd (BSCE)

Site: Beijing

Building type: manufacturing plant

Service scope: IFM service including

- technical service
- Cleaning service
- Greenery service
- Pest control
- Laundry service
- Canteen management
- energy saving consulting service

Siemens Power Automation Ltd. (SPA)

Site: Nanjing

Building type: manufacturing plant

Service scope: IFM service including

- Technical service
- Cleaning service
- Pest control
- Laundry service



Chongqing Plant

Accelleron (former ABB)

Sites: Chongqing Plant + Tianjin + Guangzhou + Qingdao

Building type: Industrial plant + office

Service scope: IFM service including

- Technical service
- Cleaning service
- Security service
- Outdoor greenery service
- Indoor plant service
- Laundry service
- Water service
- Shuttle bus service
- Canteen service



Guangzhou Branch



Qingdao Branch



Tianjin Branch



Siemens Smart Manufacturing

Innovation Center

Site: Chengdu

Building type: Office & innovation center

Service scope: IFM service including

- Technical service
- Cleaning service
- Reception service
- Conference service
- Outdoor greenery service



IFM Facility Management

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.)

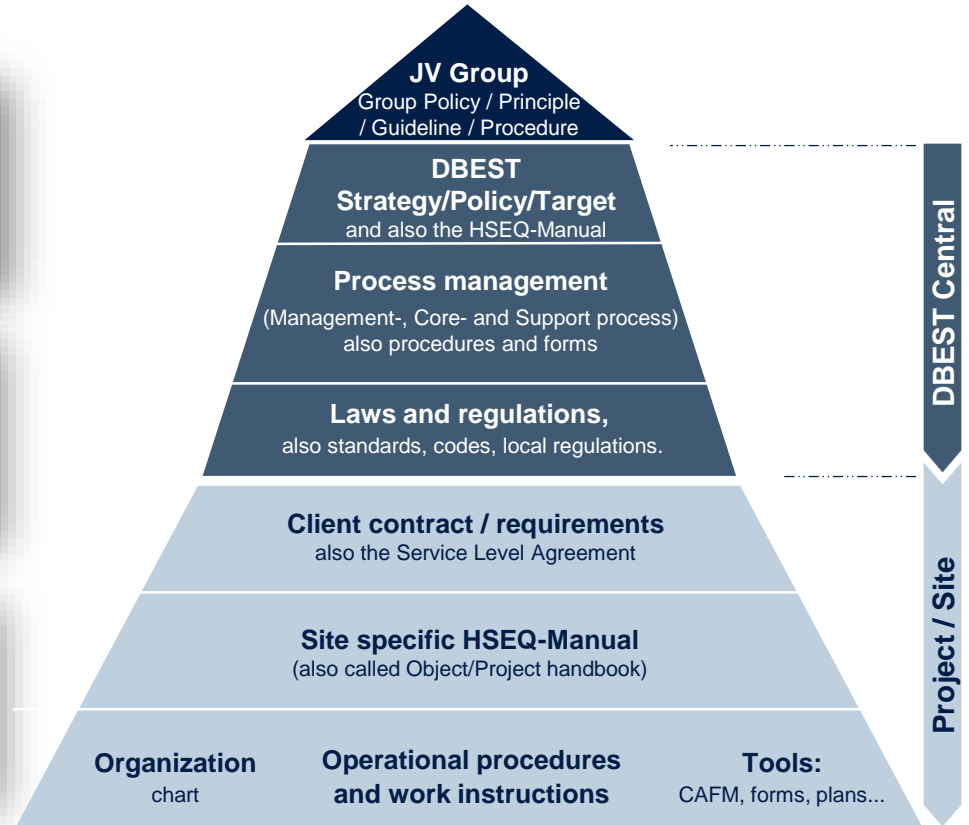
SAFETY

- 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.

TÜV Süd ISO 9001/45001/14001 certified



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

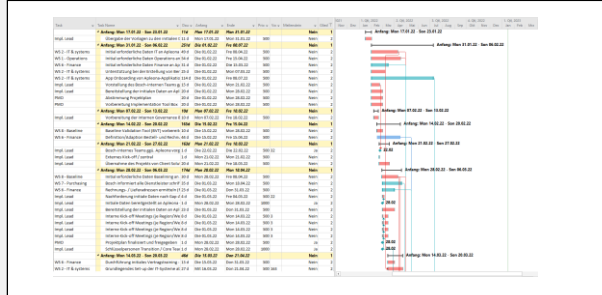
- ≡ Auditing the performance after the start-up phase and during the operation of selected sites/projects.
- ≡ Executed by the central HSEQ department
- ≡ Approx. 6 months after go live of operation

Internal audits

- ≡ Executed by the central HSEQ department
- ≡ Yearly according to audit program
- ≡ Integrated audits ISO 9001, 14001, 45001

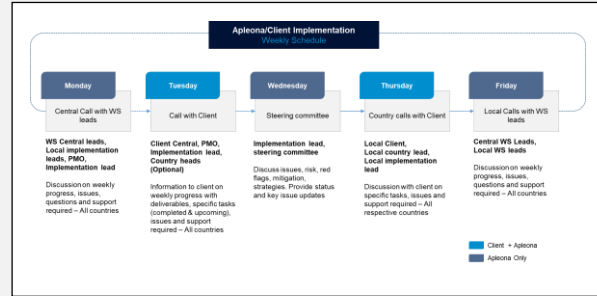


Project Plan



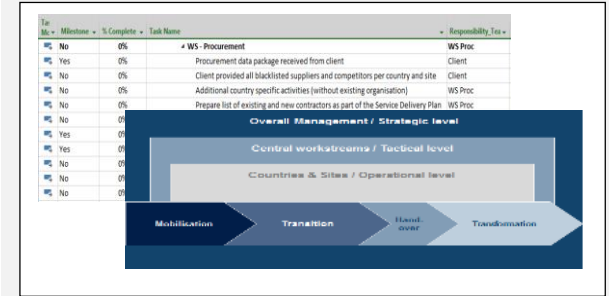
- Simplified with focus on key deliverables
- Supported by site specific activity plan

Communication Plan



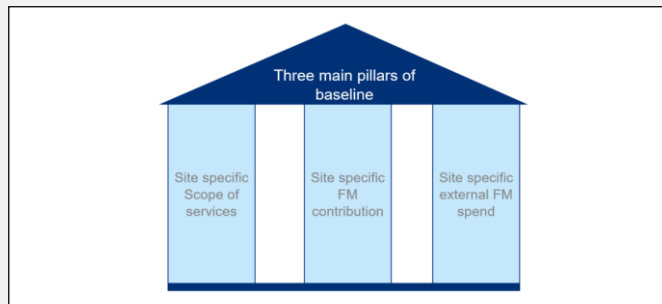
- Recurring communication
- Status reports

Risk register



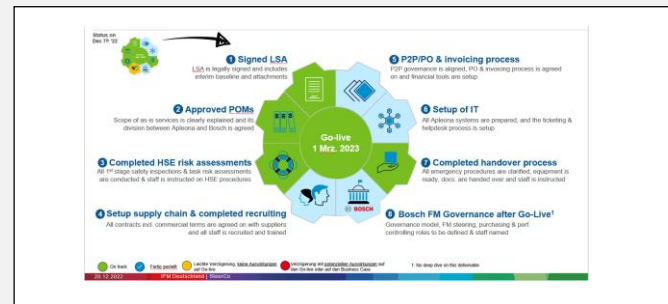
- Issue log
- Mitigation measures
- Lessons learned

Baseline Validation Tool

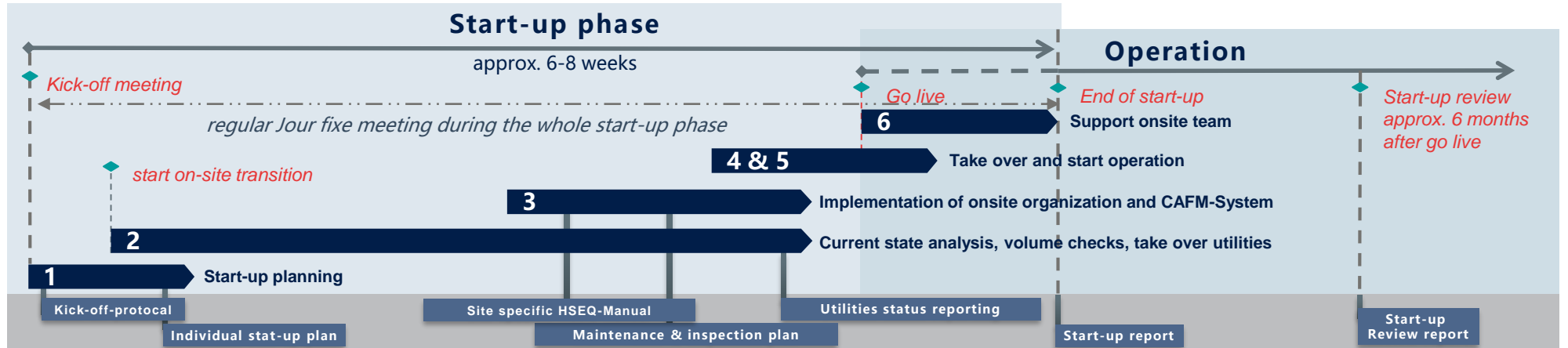


- Definition of Scope, Service Level and Spend

Standard Reporting



- Key deliverables
- Deep dives

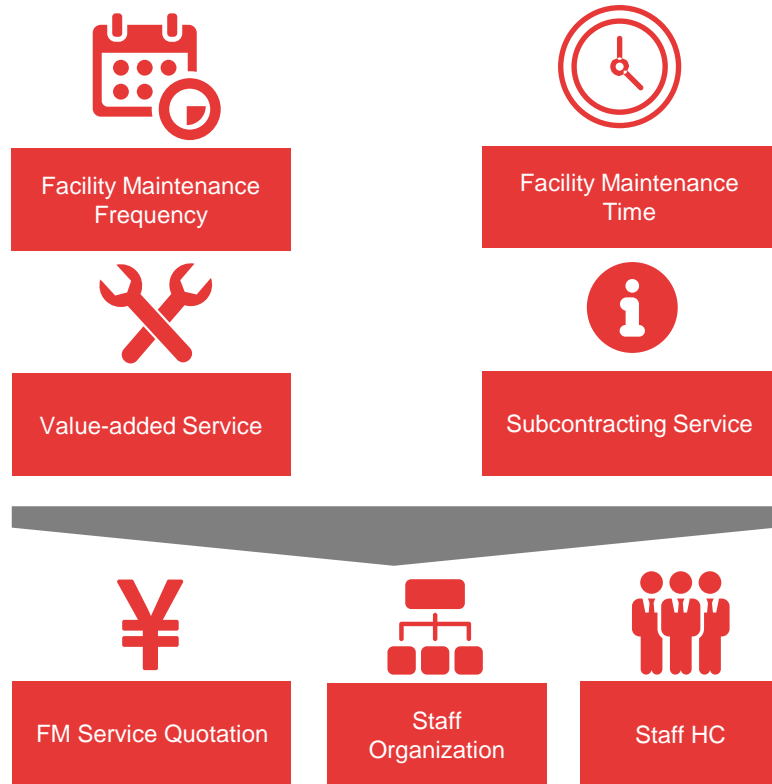


Quotation Model Based on German Type

Traditional Quotation Model



New Quotation Model based on German Type





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.



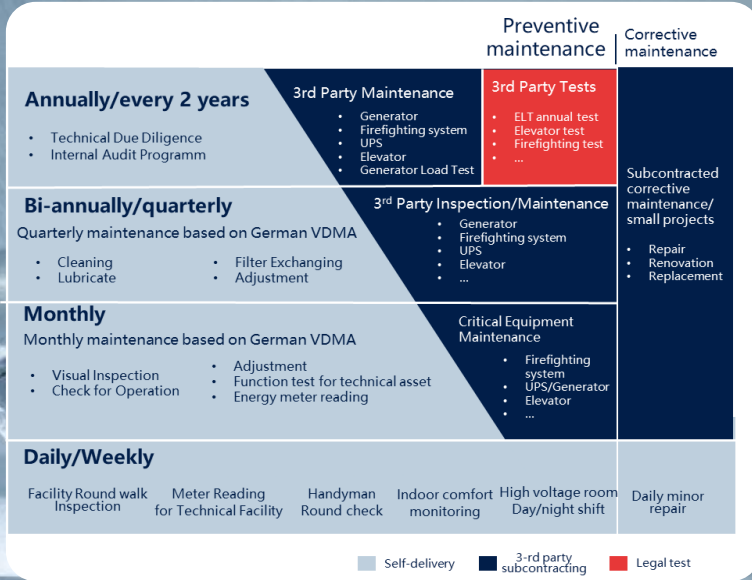
Organizational continuity

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

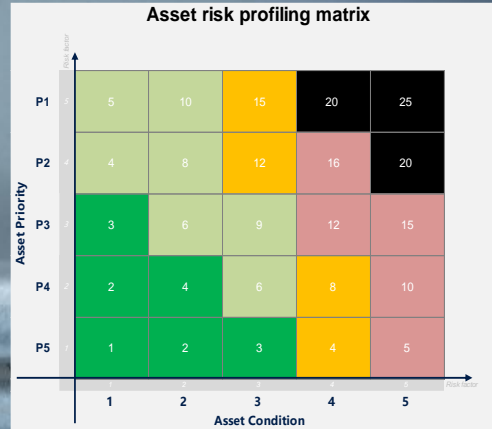


German standard technical maintenance

German based maintenance structure



Customized maintenance strategy based on asset risk profiling matrix



German FM maintenance standard - VDMA

Kältemaschine Luftgekühlt

Region: _____ Standort: _____

Objekt: _____ AG/Kunde: _____

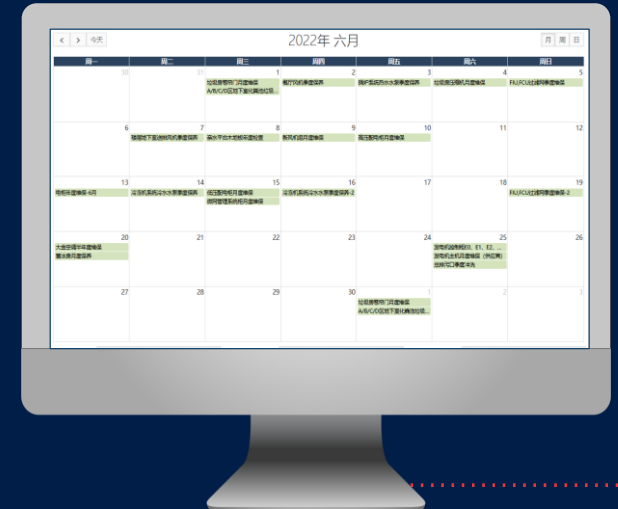
Anlagengruppe: 030 Kältetechnik Auftragsnr.: _____

Datum: _____ Ausführer: _____

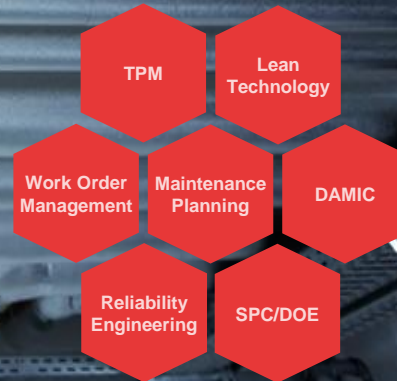
Legende: WI = Wartungsintervall, I. O. = in Ordnung, n. O. = nicht in Ordnung, RC = Rückmeldecode wenn n. O. dann bitte RC angeben. 1 = Instandsetzung erfolgt, 2 = Instandsetzung erforderlich, 3 = Austausch erfolgt, 4 = Austausch erforderlich, 5 = detaillierte Beschreibung siehe Bemerkungen

Pos.	Wartungsarbeiten	p = periodisch, bb = bei Bedarf		WI		Ergebnis
		p	bb	p	bb	
01	Verdrängungs- und Strömungsmaschinen					
01.01	Hubkolben- und Rotationsverdichter					
01.01.01	Außerlich auf Verschmutzung, Beschädigung und Korrosion prüfen		X			
01.01.02	Funktionserhaltendes Reinigen			X		
01.01.03	Auf Befestigung und Laufgeräusch prüfen		X			
01.01.04	Saugdruck messen		X			
01.01.05	Saugsaugtemperatur und dem Ventilator messen		X			

VDMA import into CAFM system



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



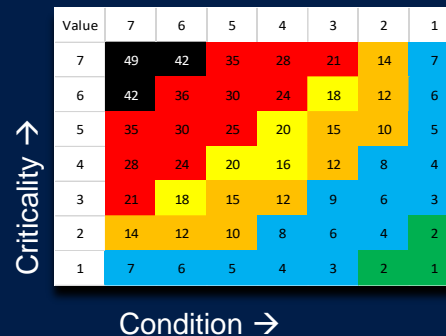


Demarcation of asset is essential to understand the asset in scope



Every asset is classified on criticality and condition

Risk Profiling



Based on the condition of the assets and the criticality, a risk profile is made on the portfolio



Professional advise about which assets should be replaced or where we need an increased maintenance regime would be given

Location: Jinshan district, Shanghai

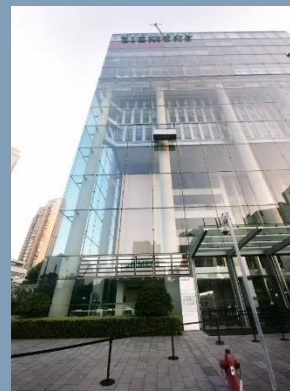


Schreiner New Factory

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.

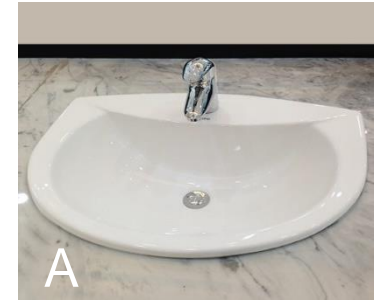




Visual cleaning standard

CROW, BICSc Visual cleaning standard based on European industry standards and service measurement methodologies

Sinks/basins: Free from impacted debris, dust, removable stains, body fats, fluids. Uniform appearance. Odour free. Free from leaks and loose fittings



Sinks/basins, taps and plug hole exhibits impacted debris, dust, removable stains, body fats, fluids, verdigris. Non-uniform appearance. Odours present.

> 10% of total items

Presence of leaks, taps with defects or broken
>10% of total items

Sinks/basins, taps and plug hole exhibits dust, removable stains, body fats, fluids, verdigris. Non-uniform appearance. Odours present.

>10% of total items

No leaks, taps with defects or loose
>10% of total items

Sinks/basins, taps and plug hole exhibits, body fats, fluids. Uniform appearance. No odours.

>80% of total items

No leaks, taps a little loose
>80% of total items

Sinks/basins, taps and plug hole does not exhibit body fats, fluids. Uniform appearance and sheen. No odours.

>90% of total items

No leaks, no loose taps
>90% total

Saving Initiatives

Savings levers	Effect	Level
Standardize		
Increase of self-delivery rate	Elimination of subcontractor margins	Organizational
Outcome based Service Delivery	Increase in efficiency and effectiveness – reduction in total labor costs	Organizational
Multiskilling of employees	Employees act across multiple service lines – lean management	Organizational
Predictive maintenance	Increased asset life + reduced replacement costs	Organizational
Technologies	Reduced workload + administration costs	Organizational
Harmonize		
Economies of scale	Achieving purchasing cost and value advantages with framework contract partners for maintenance services, consumables, spares etc.	Tactical
Consolidation	Reduction of overhead and supply chain costs	Tactical
Standardization of the processes	Process standardization will reduce non-conformance and optimize efficiency	Tactical
Harmonization of services	Cross-portfolio standardization of services drives consistent outcomes and allows business to focus on continuous improvement rather than variable performance issues	Tactical
Optimize		
Innovations	Improved quality and / or reduced costs due to innovations	Strategical
Best practice initiatives	Transfer of best practice and know-how from other DBEST Key Accounts	Strategical
Continuous improvement process	Increase in efficiency and effectiveness	Strategical

Decarbonization & Digitalization





Digitalization - CAFM FM management system



- Asset Management**
 - Asset information
 - Asset status
 - Asset maintenance and repair protocol
- Inspection Management**
 - 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



Case Study 1: Work order APP link to CAFM



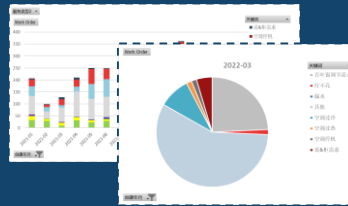
Office

空调太冷Air-conditioner is too cold
 空调太热Air-conditioning too hot
 插座或插线板没有电Ground socket or socket no electricity
 开锁需钥匙lock need
 升降桌有问题offing table defect
 漏水或渗水Water leakage
 灯不亮或闪烁Lights not bright or flashing
 有搬运需求Relocation requirement
 窗帘需要调节Window shutters need adjustment
 其他Others

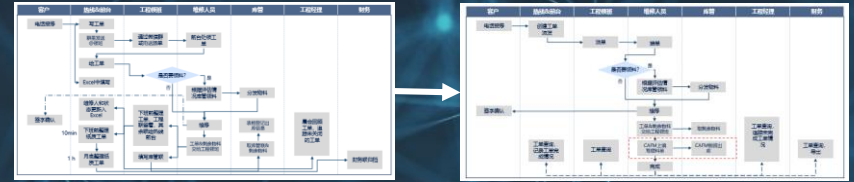
Conference

空调太冷Air-conditioning too cold
 空调太热Air-conditioning too hot
 布置需求Arrangement requirements
 需要带桌垫Need change tables and chairs
 插座或插线板没有电Ground socket or socket no electricity
 桌椅有问题Table or chair defect
 会议室设备不运行Conference room equipment not operating
 灯不亮或闪烁Lights not bright or flashing
 需要打扫Need cleaning
 其他Others

- TOP 10 ticketing requirement based on every area type, which left for end-user to choose
- TOP 10 be updated regularly based on data analysis



Case Study 2: CAFM Implementation simplify the process

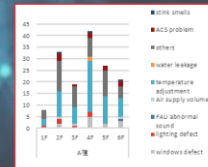


Work order average process time:

6 hours to 2 hours

Work order data collection frequency:

Once per work order to Once per day



Work order count analysis



Key word analysis



Process time analysis



Work order location

Project kick-off

- Targets and Boundaries Definition
- Focus on Building Technology, HVAC, Production Utilities

Data Collection

- Utilities Consumption Data
- Access to Metering & Monitoring Tools
- Energy performance evaluation
- Technical Documentation (Layouts, Schemes)
- *Track suggested measures since last consulting*
- *Track effect of measures taken*

Field Work

- Technical Inspection and Data Collection on Site
- Access to Documentation

Analysis

- Energy potential analysis
- List of Energy Conservation Measures

Reporting

- Management Summary
- Potential Energy, CO2 and Costs Savings
- Certification achievement if required (e.g. zero-carbon campus, LEED etc.)
- *Include measures effect tracking into report*
- *Optimization analysis based on effect*

Tracking measures from report in XXXX

Item	Implementation	Timing	Effect	Implementation	Comments
Building and Cooling	Yes	On	Yes		
For cooling heat source and AHU supply the workshop area, while VAV supply the office area.	Yes	High	High	Yes	
Access to metering and monitoring tools	Yes	High	High	Yes	
Access to documentation	Yes	High	High	Yes	
Energy performance evaluation	Yes	High	High	Yes	
Technical documentation (Layouts, Schemes)	Yes	High	High	Yes	
Track suggested measures since last consulting	Yes	High	High	Yes	
Track effect of measures taken	Yes	High	High	Yes	

Measures from report in XXXX

Item	Implementation	Timing	Effect	Implementation	Comments
Access to metering and monitoring tools	Yes	High	High	Yes	
Access to documentation	Yes	High	High	Yes	
Energy performance evaluation	Yes	High	High	Yes	
Technical documentation (Layouts, Schemes)	Yes	High	High	Yes	
Track suggested measures since last consulting	Yes	High	High	Yes	
Track effect of measures taken	Yes	High	High	Yes	

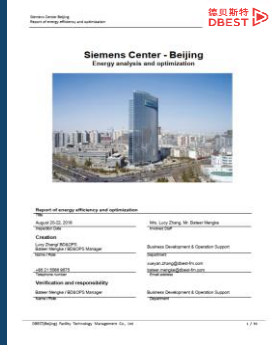


Current Situation HVAC

- Air-cooling heat source and AHU supply the workshop area, while VAV supply the office area.
- AHU is always in leaving mode, while there is return air getting into the supply air providing the energy.
- All the fans come individual equipment, the exhaust air energy can be recycled by rotation heat exchanger in AHU. The rotation heat exchanger can be controlled directly by the equipment.
- On the second subfloor data, the cooling coil and humidifier are all only training coil air in.

Energy Consulting Service - Reference

Siemens Center Beijing



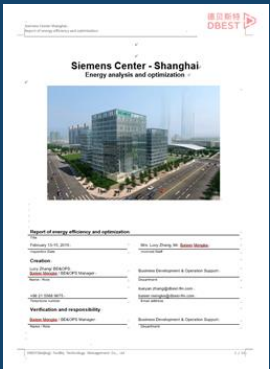
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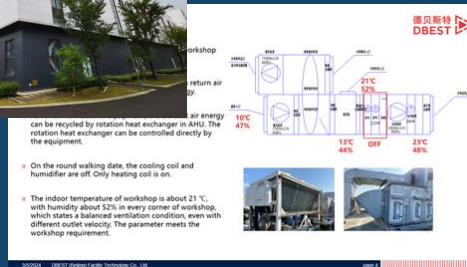
SGRE Tianjin



Siemens Center Shanghai




Schreiner




SGRE Shanghai



Energy Data Analysis

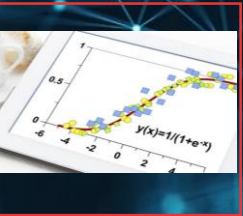
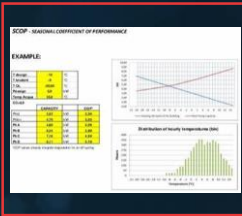
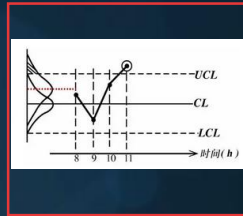
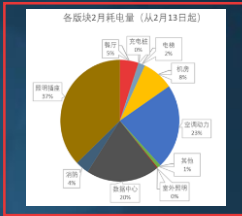

Energy consumption key point finding


Consumption data control


Key element


Energy saving project


Effect element analysis



Multi-dimensional data statistics:
Time,
Type,
Location.

SPC Control:
Data-driven,
Prevention-oriented
Real-time monitoring
Based on statistical methods
Process optimization

SCOP>3
CDA Electricity rate<0.138Kwh/m³
CHW ΔT>3°C
Chiller approaching Temp < 3°C
Power factor>0.9
Three-phase unbalance rate <10%

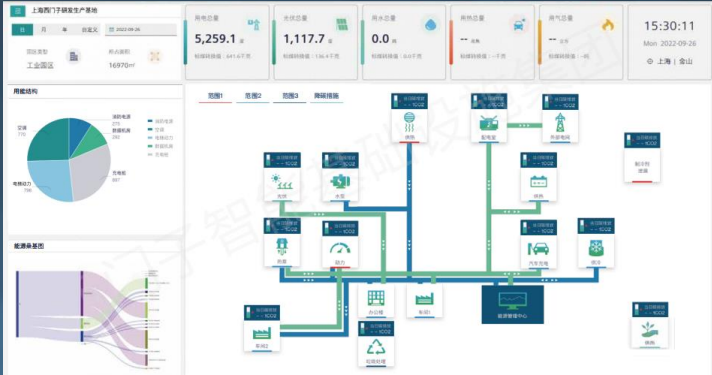
Energy storage technic
Heat-recovering
Digitization

Mathematical modeling
Consumption Forecast

DBEST's Energy and Carbon Management Platform

- DBEST utilize its experience in energy consumption analysis and carbon emission analysis, combined with the technology of its parent company Apleona and Siemens, to create professional energy and carbon management cloud platform to support the carbon emission management of factories and office buildings of each customer.

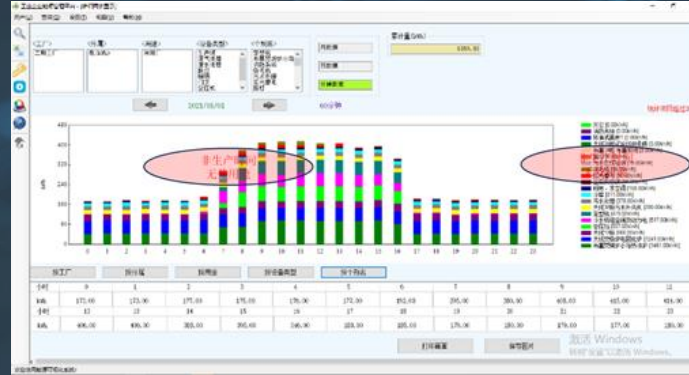
Energy Management Platform I



Function:

- Energy analysis
- Performance management
- Energy consumption prediction
- Carbon analysis & management
- Carbon neutral path planning
- Carbon asset management

Energy Management Platform II



Function:

- Customized energy analysis & reporting based on engine
- Performance management
- Alarm in energy consumption abnormal value & trend
- Correlation analysis

Energy Management Platform I

- Reference

Reference: Siemens Center Beijing

- DBEST provide IFM service since Year 2014.
- Siemens, as a major technology company, is committed to achieving carbon neutrality in its operations by 2030.
- Siemens Center Beijing campus consists mainly of office buildings with floor area of 100,000 m²
- Differentiated and fine energy management for multi-tenants is needed.

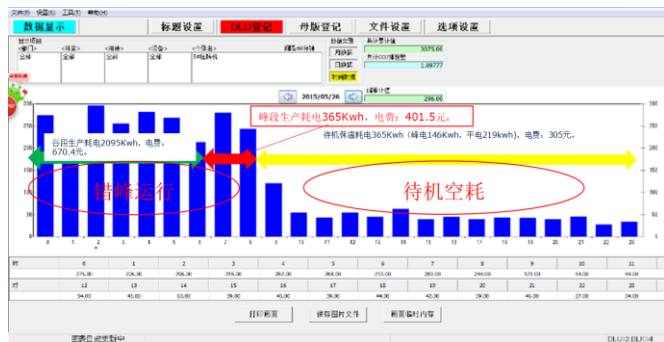
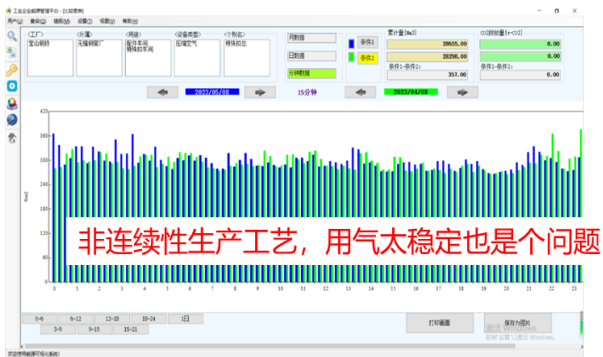
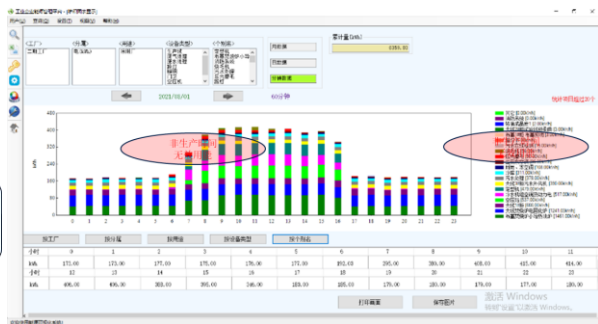
Benefit

- ✓ Completeness, authenticity and transparency of carbon & energy data;
- ✓ Reduce O&M costs;
- ✓ Contribute to the Siemens 2030 carbon neutrality target.
- ✓ Annual energy savings approximately 10%



Energy Management Platform II

- Reference



Reference

- Benefit
- ✓ Reduce peaks and valleys to reduce cost
 - ✓ Quantitative assessment & management of energy efficiency
 - ✓ Analysis energy use in each region
 - ✓ Reduction of standby air consumption and other ineffective energy use
 - ✓ Analysis the energy consumption of production lines or machines in similar category.
 - ✓ Efficiency monitoring & analysis of air pressure station
 - ✓ Air-conditioning system in workshop monitoring

Sustainability & Decarbonization



An APLEONA JV Company

Engineering & technology

High efficiency equipment



Heat exchange



Free cooling



High-efficiency chiller room



LED lighting



Smart PM2.5 control



Ground-source heat pump



CCHP

Management service

High efficiency operation



Energy optimization



Energy measurement system



Carbon management system

Service Package

Light Consulting Service



Multiple options
Qualitative economic evaluation

Moderate Consulting Service



Multiple options
Quantitative economic assessment

Premium Consulting Service



Systematic portfolio of solutions

Whole-Process Service



+ Project implementation

Life-cycle Services



+ Effect tracking
+ Operation

Energy storage system

Electricity system



Electricity storage system



Heating storage system

Cooling system



Ice-storage system

Clean & Renewable energy

Renewable energy



Photovoltaic

Heating & cooling energy from nature



Ground-source heat pump



Air-source heat pump